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THE WOODEN AGE.



THE FIRST STROKE.

WHEN the philosopher of the future, thousands of years hence, shall dig into the past to learn how obsolete people did live and build and develop, as we are now dig-

ging into what we call the stone, the bronze, and the iron ages, he will discover that this nineteenth century was mainly marked, so far as the North American continent was

VOL. XV.—10.

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concerned, with what he will term the "Wooden Age," followed by the brick, the stone, and the iron periods of architecture. He will, if he explores backward with some truth and ingenuity, learn that the newcomers who so swarmed in upon and overran these fresh lands, found first the great forests with which to build their houses, fences, ships and implements; and that afterward, when those resources were swept away by use, by fires, and by an all-compelling mania to see the face of the land shorn of every obstruction, the ancients of the nineteenth century were driven to other expedients with the products of the earth and the mine. Not waiting, however, for the possible classifications of the thirtieth century, we may safely say that to-day we are in the midst of the Wooden Age, and that it is an interesting subject to consider how long it is likely to last.

In the development of a new country like the United States, it may be difficult to say which is the most important factor—the product of the soil, the forest or the mine; though it is quite likely that in the practical necessities of civilization they come in the order we have given. First, agriculture, as the prime necessity for food; next, lumber and timber, to give houses, fences, vehicles, bridges, farming implements, etc.; and then iron for railroads, machinery and tools. But in the wonderful progress of the great West, which contains so many paradoxes, this order of production has not been closely adhered to. In the race for new lands, new town sites, and new sources of wealth, we have not waited for the plow and the wheat-field to precede us. Out on the plains balloon towns have sprung up, as it were in a night. Agriculture is an after-thought, and the farmer comes slowly after the pioneering trader and speculator. Even the railroad, which we have been accustomed to regard as the latest comer of all, has begun to surprise us (in pursuit of land subsidies or the commerce of a region beyond) by suddenly stretching itself out across trackless and uninhabited wastes. As has been said by a man well known as one of the most fearless railroad projectors in this country, "You cannot build a railroad into a wilderness; you may point one there, and you may build it with all the speed and energy of capital, but when you reach the place you will find the settler before you."

But with some little exceptions and reservations, it is safe to say that among the

earliest elements in the settlement of a new country is lumber. The first things are—roofs over our heads; fences to protect the growing crops; bridges to cross the streams; and before even the locomotive can reach us, there must be the ties on which to lay the rails. Thus in a new country everything is wooden. The tremendous demands on the forest soon thin them out, and then utterly destroy them. Then what? Ay, but the country has grown old—old for this western world—and we pass on to other stages. Here in New York, for instance, we are already outliving the Wooden Age, and are entering on that of brick and stone. The wood in one of our modern buildings is scarcely of any account, and exists only in the door-ways, window-casings, not often even in the roofs, and is getting to be antiquated for the floors. It has been an anxious problem many a time, and in an immense area of our country is to-day, as to what we shall do when the timber is exhausted. Sufficient unto the day is the evil thereof. The problem is being solved every day where the necessity brings it to the front.

In the capital invested, the number of people engaged, the skill brought to bear, and the general enterprise enlisted in the production of lumber, it is scarcely second to any other industry. There is no business which calls for such energy, such indomitable perseverance, and persistent, inflexible purpose. The lumber producer, from the time he strikes the first blow in the pine forest, begins a contest with the elements, the seasons, and almost with fate. Too much snow, too little snow, too much water, too little water—these are alike disastrous. The terrible forest fires devastate his timber lands; and his mills, being generally driven by steam, are in hourly danger from their own fires.

In estimating the magnitude of the lumber trade too, it is difficult to contrast it, by actual figures and statistics, with other great classes of production, because, oddly enough, it refuses to submit itself to the statistician. You can tell, every year, pretty closely the number of bushels of wheat produced, or the tons of iron or of coal, because they mainly find their way to the great centers of trade; but lumber, in a certain way, finds its markets remote from those centers, and seems to be dissipated out of sight. Here and there a lumber district may be harnessed down to a status with the "exact sciences," but such a territory is only as a

drop in the bucket. There are also great lumbering centers to be compassed by estimates; but all through the land, up hill and down dale, along highways and by-ways, the greater and the lesser saw-mills are scattered beyond the reach of even the ubiquitous newspaper reporter.

Before the approach of winter, the saw-mill owner projects his campaign for the logging-season, planning it with all the care of a military campaign, and frequently, with more forethought and ability. He selects his places of operation in the woods, locates his "camps," builds his shanties, and makes his logging-roads. These are best done before the snows come. A logging-camp is located with reference to the nearest access to the timber to be operated upon—other conditions having due weight also, such as the proximity of good water, and a connection with a main road leading to the base of supplies. Though the work of hauling never begins until winter has fairly set in, and there is snow enough to make good roads, the thrifty logger is often actually at work considerably before. He is chopping down the trees, sawing them into logs of proper length, and "skidding" them by the use of ox-teams. "Skidding" is hauling them together into considerable piles and placing them on skids, convenient for loading them on the sleds. It is an easier and quicker method than "loading from the stump," which consists in rolling the log upon the sled from the ground where the tree has fallen. The work of loading upon the sled from the ground is accomplished by the use of a pair of oxen, a chain being passed from the sled under and around the log and thence to the team, which thus rolls it forward over a pair of skids to and upon the sled. A horse-team will haul from 1,000 to 2,000 feet from the woods to the stream. As 1,000 feet of logs will weigh nearly two tons, an estimate may be made of the immense loads thus hauled. But the roads being generally fine, and in the main having a downward grade, these large



SAWING LOGS IN THE WOOD.

loads are very readily managed. The first logs "landed" at the stream are usually rolled directly upon the ice, and the others following on top of them, the ice breaks down and the front of the roll-way nearly fills up the channel. Then, as the logs are delivered from the sleds by accumulating thousands, they are landed one above the other until the pile becomes too high for further unloading, and a new section of river bank is resorted to. Thus, after a successful winter's work, the bank is piled full for miles along the stream with the log-harvest, until some time during the month of March, when the days become so long, and the sun so warm that the snow disappears from the roads, and the logging season is ended.

There is now an interval of inactivity. It is several weeks from the close of hauling until the ice in the streams has gone, the waters rise, and the work of "running" com-

mences. This inactive interval is variously employed by the logging crews, who are relied upon, when the time comes, to do

time. They are a well-paid set of men and ask no favors, and though they sometimes go through a town with the velocity and



LOADING FROM THE STUMP.

the running. If their camps are located within a reasonable journey from the mills or settlements, they go there to spend the

effect of a simoom, they are conscientious about straightening up wrecks and paying damages. On one system of logging rivers, especially, in the West, the expression has become a proverbial one, "When we get through in the spring, we will all go down to O— and have a little fun with the boys." Having "a little fun with the boys" is an expression meaning "a good time" of the wildest sort. And it means, to the authorities of that town, to be ready with an additional force of policemen who wont mind getting their heads broken on the occasion. If the camps, however, are high up on the streams, perhaps fifty or a hundred miles, the loggers spend these waiting weeks of inactivity in enforced idleness at the camps. They work, wash, and shave, and mend their tattered gar-



A LOG LANDING.

ments. They read every readable scrap which is found lying about the shanties, scarcely staggering even at a speech in Congress. The everlasting pack of worn and greasy cards is resurrected from the bottom of the chest. The running and rafting implements, pike-poles, etc., are made ready, and the pleasant, sunny days of coming spring are largely passed in discussing the "big water." Will there be water enough? Will there be too much water? If the snow has been light, and the spring early and warm, and especially if the previous fall has been a dry one, the melted snow is taken up by the swamps and ground, or passes quickly off down the streams before the warmth has released the logs from their icy anchorages, and by the time the streams are open the water has gone. In that case the logs cannot be started until the annual freshet in June,—the "June fresh," as the loggers say,—and in case that fails, the whole crop is "hung up" for the balance of the year—indeed, until the next spring. Or, on the other hand, with heavy snows and continually warm days, the waters come pouring down in such floods that, overflowing the river banks, they spread out on either hand over the flat lands; and the logs, if then set adrift, are liable to be carried far and wide, and left, when the water subsides, high and dry at long distances from the bed of the stream, recoverable only at an expense which sometimes exceeds their value. But presuming the running season to be a good one, as it is in a large majority of cases, the march of the winter's crop from the head-waters of the rivers down to their mouths is quite as jubilant and exciting as Sherman's march to the sea, and not without an agreeable spice of danger. The log run of a large mill, reaching perhaps 30,000,000 feet, will occupy a river for five to ten miles of its length; and with a gang of fifty to a hun-

dred men scattered in squads along this distance, the work is as inspiring as it is laborious. Each man has the soles of his heavy boots armed with projecting nails or prods, to give him a sure foothold on the logs, and carries a "driving-pike" or heavy pole some eight feet long, fitted at one end with a stout pike, for the purpose of prying out the logs and releasing them from jams. It is the effort of the drivers to keep the logs steadily moving forward in good order, and in such masses as to avoid jams at narrow places in the stream. A jam forms readily when two logs, each lodging with an end on either side of the stream and swinging together engage their free ends in the middle of the stream, forming a V, with the angle projecting up-stream. Then the logs which follow are halted one after another, coming up like a drove of cattle, mounting, overriding, or diving under, and, under the influence of the impetuous current, jamming into what seems to the unpracticed eye an inextricable mass.

The current of the river is at once halted, as if by a dam, and the drivers at work above rightly conjecture the cause and fol-

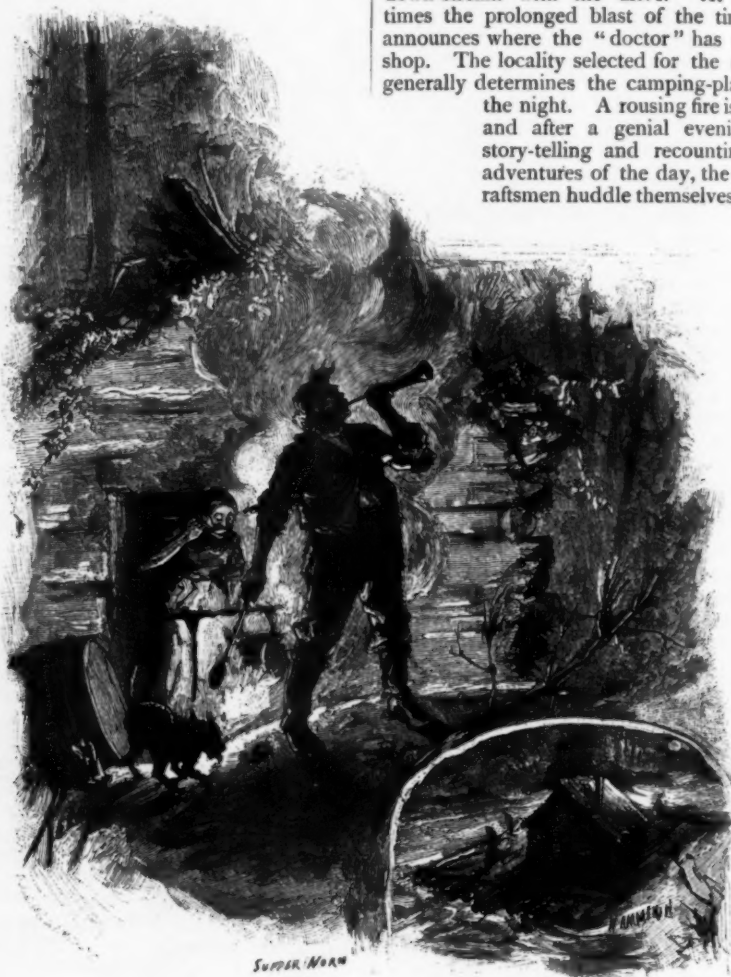


DOWN AT THE BOOM.

low down-stream to find the jam. Here the practiced driver at once proceeds to the foot or down-stream end of the jam, and with a critical eye promptly fixes upon the two or more logs which are the key of the whole position. Deftly he inserts his

pike-pole, loosening the logs inch by inch at the point of collision until they give way; and lo! almost before he can reach the shore in safety, the front of the great pile starts off, the upheaved masses set-

the eating part of it is attended to by traveling cooks who keep company with the drivers at proper distances apart, in canoes, or batteaux, into which they load in the morning, or after dinner, their pots and kettles and provisions and float down-stream with the drive. At meal-times the prolonged blast of the tin horn announces where the "doctor" has set up shop. The locality selected for the supper generally determines the camping-place for the night. A rousing fire is built, and after a genial evening of story-telling and recounting the adventures of the day, the hardy raftsmen huddle themselves under



SUPPER HOUR

tle themselves into the river, and, the tremendous head of water behind giving them impetus, go tumbling and crowding down-stream. The jam is broken.

Of course these drivers must eat and sleep, though they are miles away from camps or settlements. On some streams

a blanket or two which the cook has brought forward and are soon sound asleep. On the larger and wider streams where there are no rapids or dams, all is plain sailing; the drive is accompanied by what is called a *wammikin*, consisting of a raft of square timber, or long logs, on which is built a

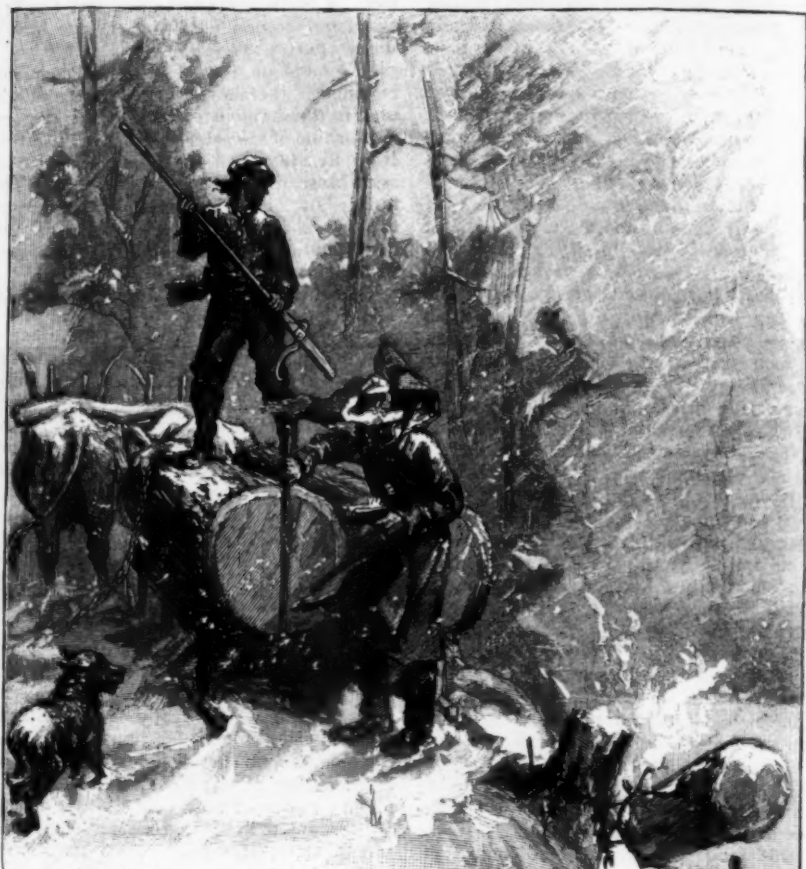
comfortable shanty, with complete cooking and sleeping facilities. This follows closely on "the tail of the drive," or in cases of extensive drives several of them are placed at intervals of a few miles apart. Here the men congregate for their meals; or in some cases the cooks have a staff of assistants called "cookees," who go up and down the drives, laden with the cooked provisions, and even the portable tea-kettle. If anything is grateful to the tired and wet river-driver it is his cup of tea. It is better than whisky, for it leaves no debilitating effects, and the driver will "swear by" the company which sends him ample supplies of good strong tea and coffee. At night, the men seek their several *wammikins* for supper, sleep and breakfast; and when the drive finally arrives at its destination, the timber of these portable hotels comes into good use for booms and other purposes.

Thus sometime during the month of May—varying according to the character of the streams and the climate of the region—the logs arrive at the booms convenient to the mills. If the drive is made up of logs belonging to various mills or companies, as they generally are, there is a system of "sorting booms," by which the logs, each bearing a distinguishing mark, are distributed to their several ownerships. This is an important business, and is in many instances managed by companies which are organized for the purpose and chartered by the state, and which, having no proprietorship in the logs, divide them with entire impartiality and acceptance to the owners. A noticeable instance of this kind is at the great Beef Slough boom, at the junction of the Chippewa with the Mississippi, in Wisconsin, where hundreds of millions of feet of logs are annually boomed, sorted, rafted and started down the great river under the convoy of steamers. There is the same method of procedure on the Saginaw, the Muskegon, the Manistee and other great lumbering streams of Michigan, on the rivers of Maine and in Canada and elsewhere, where the melting snows of spring are relied upon to bring forward the great winter crop. In Florida, on the Pacific coast, and other warm regions, of course no such work is known.

Now commences the summer work of sawing the lumber. The great modern lumber-mills of the northern states are, it is safe to say, the most complete in the world. No machinery, within the last twenty years, has more rapidly advanced toward perfec-

tion. Twenty years ago the "muley-saw," so called, had superseded the old style of "sash-saw," and was looked to as the *ne plus ultra* in rapid execution. The old "sash-saw" was so thin that it had to be kept strained within a frame or "sash," to prevent its "buckling" or bending when crowded into the cut, and even then it could only be driven at a very moderate rate. The "muley," which superseded it, was a thick, heavy saw, needing no sash, and could be driven through the log at a tremendous rate, though with corresponding thickness of "kerf" or waste of timber. Then came the circular saw, cutting about an equal kerf but doing vastly more rapid work. And about the same time came the "gang-saw," a congregation of saws hung together in a frame or sash, and set at fixed distances apart corresponding with the thickness of the lumber desired to be cut. These gangs run at slow speed, but as there are enough of them to convert whole logs into lumber as they pass through,—thus obviating the necessity of "gigging back" the log for a new cut,—they really do tremendous execution, and now comprise the most approved sawing machinery of the great modern mills. The logs pass in endless procession from out of the water at the log-slide, through the gangs, and thence forward, as lumber, out of the mill to the dock, ready for shipment. Some later improvements, however, in some cases, intervene between leaving the mill and arriving at the dock. The lumber is laden upon a car which runs into a drying-house, supplied with the waste steam from the engine, where most of its moisture is taken from it, and it reaches the vessel or railroad in nearly a dry condition. There is an especial advantage in this, where the lumber is forwarded to market by rail, as much more dry than green lumber can be carried on a car at no additional expense. The dried lumber also brings a better price in market.

Most of the larger mills run during the twenty-four hours of the day—two gangs of men relieving each other at stated intervals. Twenty years ago, it was called a "smart" mill which would produce 30,000 to 50,000 feet of lumber per day of twenty-four hours; now there are many mills which cut 150,000 and 175,000 feet per day. We may help our unskilled readers in comprehending this amount, when we say that from 200,000 to 250,000 feet is the cargo of an average lumber-vessel on the lakes, and that thus one



MEASURING AT THE ROLL-WAY.

of these modern mills will nearly load a vessel per day.

The greatest lumber-producing states are Michigan, Wisconsin, and Minnesota. Here grows to perfection the white pine, doubtless the best timber for lumber, all things considered, which the world produces. It is soft, easily worked, does not readily check nor warp, and under fair circumstances is almost imperishable. It and its congeners, the hemlock, tamarack, spruce, etc., have been found intact in the ruins of Pompeii, buried eighteen centuries ago, and, in this country are found imbedded thirty feet under the clay-drift which overwhelmed forests in the unknown ages of the past.

The white pine has a long lease of life—several centuries; and in the North-west it is the chief feature of the lumber. With it

our figures will deal almost solely, leaving the hard woods and other varieties to fill up unnoticed and uncounted crevices.

The great lumber-producing points in Michigan are on the Saginaw River and its tributaries, and at Muskegon, Manistee, Menominee, and at smaller points along the lines of railways, etc. In the Saginaw valley, for instance, there were manufactured, in 1875, 536,836,839 feet; at Muskegon, 351,400,000 feet; at Manistee, 160,825,855 feet; at Menominee, 117,505,702 feet; and at all points in the state, 2,746,866,184 feet. This is the product only of the prominent

feet; at Stillwater, 95,314,000 feet; at Winona, 22,850,000 feet—and in the whole state, 342,623,171 feet.

At points on the Mississippi River, not included in the above, there were manufactured in the same year a total of 291,487,000 feet—some of the chief points being Clinton, Iowa, 85,218,000; Lyons, Iowa, 77,165,000, and Muscatine, Iowa, 25,000,000. The timber for all, or nearly all, of these river mills comes from the upper Mississippi and its tributaries in the states of Wisconsin and Minnesota.

The total manufacture for 1875, then, for



BREAKING A LOG-JAM.

lumber-mills, no account being made of the lesser ones scattered through the country, having only a local trade.

In Wisconsin, in 1875, the chief lumber points produced, at Eau Claire, 153,089,900 feet; at Oshkosh, 95,300,000 feet; at Oconto, 65,600,000 feet; at Menominee, 69,300,000 feet; at La Crosse, 57,500,000 feet; at Wausau, 42,200,000 feet; at Peshigo, 36,500,000 feet; and so on—the whole state producing in that year, at its chief lumber points, 1,036,576,900 feet. No account, we may state again, is here made of the lesser mills of the country—of which there are multitudes; and no account, also, of the shingle, stave, wagon-stuff, tub and pail, and other mills for wooden products.

In Minnesota, in the same year, there were manufactured, at Minneapolis, 146,494,171

the principal lumbering stations of the Northwest, may be summed up as follows:

Michigan.....	Feet.....	2,746,866,184
Wisconsin.....	".....	1,036,576,900
Minnesota.....	".....	342,623,171
Mississippi River.....	".....	291,487,000
Total.....		4,417,553,255

In Pennsylvania, the chief lumbering points are at Williamsport, where 182,270,000 feet were manufactured in 1875; and at Lock Haven, 47,325,000. Other points manufactured 34,225,000.

In New York, there were manufactured in the same year 10,680,000 feet, the chief points being Postville and Warrensburgh.

In Maine, for the same year, a total cut of 45,344,000 is reported—the largest being at Saco, 15,000,000 feet.

In Georgia, a cut of 17,750,000 feet is reported for 1875. In Florida, 26,300,000 feet—manifestly short of the true figures—is reported. In Alabama, 7,500,000.

Thus we have a total reported of lumber products, in the Atlantic states, for the year 1875, as follows:

Michigan	Feet	2,746,866,181
Wisconsin	"	1,036,576,900
Minnesota	"	342,623,171
Mississippi River	"	291,487,000
Pennsylvania	"	263,820,000
New York	"	10,680,000
Maine	"	45,344,000
Georgia	"	17,750,000
Florida	"	26,300,000
Alabama	"	7,500,000

Total feet,.....4,788,947,252

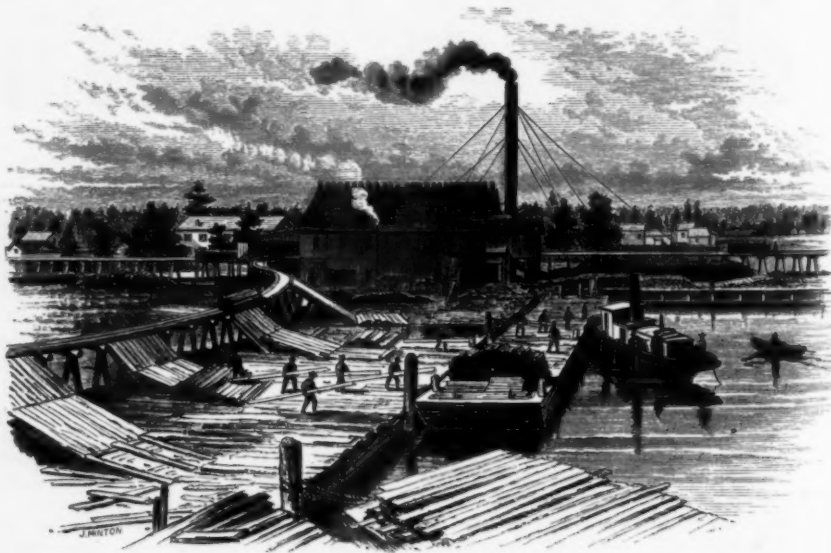
All of the above estimates are for white pine lumber alone, except for the Gulf states, where the product is mainly of yellow pine.

On the Pacific slope, the chief lumber-producing points are along the coast from San Francisco to Puget Sound, the timber consisting chiefly of pine (so called, though really fir) and red-wood—the fir being the great lumber-producing material, and resembling the so-called pine of the Gulf states. It is found mainly in Oregon and Washington territories, stretching north into Alaska and British Columbia, and the



A LOG-JAM.

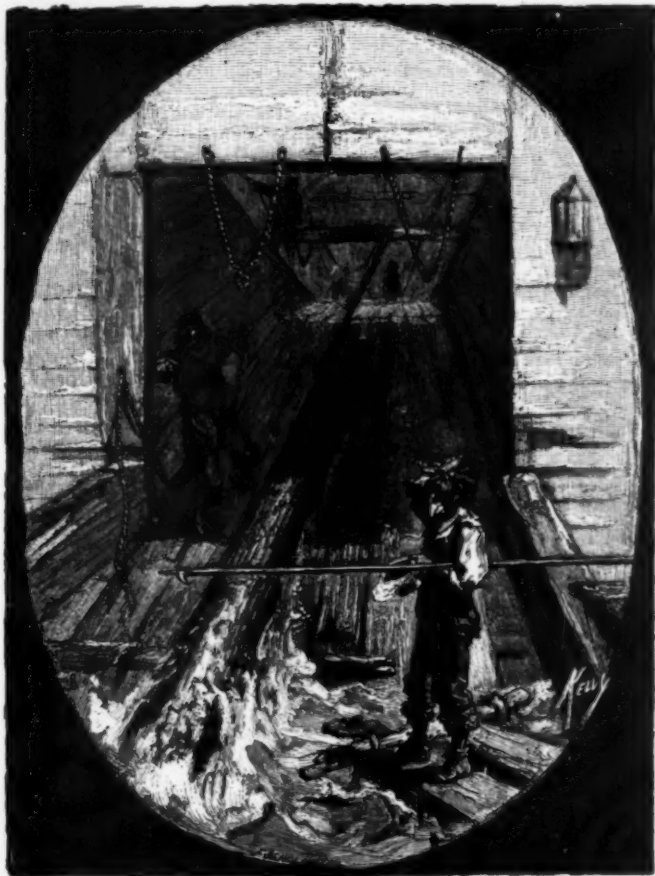
forests are almost inexhaustible. The red-wood is almost wholly found in California, chiefly in Humboldt, Mendocino and Del Norte counties, where there are large forests of very heavy timber, and, though not inexhaustible, sufficient for the wants of that region for a long time to come. It is used principally for general building work, railroad ties, bridges, etc., and is very durable, though lacking the strength of other timber. One of its peculiarities is that it will shrink *endwise* instead of *sidewise*. It is a very



A MODERN SAW-MILL.

resinous wood, and consequently large tracts of it are burned off every year. Yet it keeps fire so badly in the coals, that there is little danger of the cinders carrying fire when buildings constructed of it are burned, as, when carried through the air, they go out before falling. The trees are large, averaging six to seven feet in diameter at ten feet from the ground. It grows very tall,

quantities along the coast of Southern Oregon, between the latitudes of 42° and $43^{\circ} 3'$ north, and to some extent in Alaska, but inferior in growth and fitness for lumber. The spruce is confined to low lands along the coast. It is a white wood, and one of its characteristics is that it is free from juices and odors, making it especially valuable for packing-boxes, etc. It makes not quite so



HAULING LOGS UP "THE BROW," AT THE MILL.

furnishing timber for lumber 250 feet and upward. It is a favorite timber for vessel-building and for masts, and is largely shipped abroad for that purpose. To manufacture some of these immense trees in the mills, they have to be split open so as to accommodate their size to the sawing machinery. A white cedar is found in limited

clear lumber as the white pine of the Atlantic states. The whole coast-range from Cape Mendocino north to Alaska is mainly well covered by forests,—the mountains, however, being but poorly timbered and of little importance for lumbering purposes. The foot-hills have an available timber, promising a large resource for the future.

The mountains in the interior of California are well supplied with saw-mills, and a great deal of lumber is manufactured for home use—perhaps 30,000,000 feet per annum, by these inland mills alone—which does not find its way into the lumber reports. This inland timber is designated as “sugar-pine” and “mountain-pine.”

No accurate reports are attainable of the entire product of the Pacific coast—large shipments being annually made from local points of manufacture to foreign countries, the figures of which do not find their way into the statistics. Of these foreign shipments, some of the chief ones are to Mexico, China, Australia, Peru, Calcutta, Tahiti, and other Pacific islands. These foreign shipments for 1875 reached 25,000,000 feet, so far as ascertained, but no report is made of a large excess above that. The total receipts at San Francisco for 1875, were 306,324,198 feet, and it is estimated that the total product of the coast for the year was 362,000,000 feet. This does not include shingles, laths, ship-timber, piles, railroad material, etc. A local authority estimates the annual export of the coast at 405,000,000 feet, as follows: Puget Sound, 350,000,000; the Columbia River, 20,000,000; and the mills along the Oregon coast, about 35,000,000.

The principal mills along the Pacific coast are northward from San Francisco: Humboldt Bay, ten mills, with a total capacity of about 400,000 feet per day; Trinidad, two mills, 60,000 feet; Crescent City, two mills, 70,000 feet; Coos Bay, Oregon, a large lumbering point, number of mills not stated; Astoria, Columbia River, two mills, 105,000 feet; Puget Sound, about twenty mills, with total capacity of about 800,000 feet per day.

Washington Territory contains the largest amount of timber available for lumbering purposes on the Pacific coast. An immense extent of fir and cedar forest encircles the whole sound and borders all the rivers, besides that which is found on the foot-hills of the Cascade and Coast ranges. It is estimated that three-fourths of Western Washington is covered with forest, a large proportion of which is claimed to be the finest timber in the world for size and durability. It is not unusual to find a tract of several thousand acres of fir, averaging three and a half feet in diameter at the stump, and standing two hundred feet without a limb, the tops being seventy feet higher. Three hundred feet of solid trunk is not an extra-

ordinary growth. It is estimated that the area of forest land in Oregon and Washington covers 65,000 square miles.

The prices of lumber at the mills on the coast range from \$10 to \$20 per 1,000 feet, the average of coarse lumber being about \$14. This contrasts strongly with the early days of development on this coast, when, in 1849, in San Francisco, lumber was worth \$600 per 1,000 feet. Logs, in the raft, are worth \$3.50 to \$5 per 1,000; and timbered lands well located are held at \$8 to \$15 per acre.

Thus, generally summing up the statistics of the lumber products of the United States, we reach a known sum of about 5,000,000,000 feet yearly. Add to this the lumber of which no account is taken in our previous estimate, and it is probably safe to say that the United States is now producing, each year, timber products to the amount of 10,000,000,000 feet. These figures can scarcely be comprehended by the average reader. This amount of lumber would load every year 50,000 vessels, each carrying 200,000 feet, which is an average cargo for lake vessels; or 1,428,571 railroad cars, each averaging 7,000 feet—an average car-load. This would make a train 8,500 miles in length, or about one-third around the globe.

Under such a tremendous yearly drain, the question naturally comes up, how long will our forests hold out at the present rate of manufacture? It is really an important question, upon which follows the inquiry as to what we are to do for building material when this magnificent wood—pine—is exhausted. One authority after another has entered formally upon its solution, with satisfactory results in local instances, but very vague ones as to the field at large. At the rate we are cutting it to-day, from thirty to fifty years seem to be agreed upon as about the limit. Twenty years ago there was apparently no limit, for the consumption was not only less, but the means for its manufacture were primitive, and accomplished much smaller results than now. It seems as if it were impossible to further improve the machinery of saw-mills; but the near future may, for all that, see sawing machinery in comparison to which that of the present will be contemptible. So, although twenty years ago there was no foreseeing the end of the timber, now, with the modern mills and myriads of them, we are beginning to calculate with dire certainty as to the time when the “Wooden Age” will be a thing of the past.

THE THOROUGHBRED HORSE:

ON THE TURF AND ACROSS COUNTRY.

THE higher flights of the thoroughbred horse in his more legitimate and more vigorous work of racing, steeple-chasing and fox-hunting, show a development of his qualities of speed, wind and endurance, that is never reached in the ordinary road-work and pleasure-riding for which he is so well fitted; for which he is, indeed, much better fitted because of the qualities that these exercises had developed in him before racing regenerated.

Fox-hunting does not demand a very high amount of blood for its satisfactory average performance. Success in following hounds depends largely upon skill in leaping, and upon that sort of instinctive shrewdness which enables a horse to go through, or over, or around an obstacle quickly, and to take advantage of the favoring accidents of the course.

Many of the lighter weights of the English hunting-field, and many, too, of the more stalwart and ponderous riders, get a satisfactory amount of sport with horses which are very far from being thoroughbred; but even here, a good share of bone and good

or 280 pounds, find no difficulty, being willing to pay the price, in getting hunters nearly thoroughbred,—none others than such could do it,—capable of carrying them across country, over hedges, brooks and timber, as fast as fox-hounds can run."

As to racing where size, and length of limb, and correctness of structure are more important than anywhere else, the one thing that is absolutely indispensable is purity of blood. It is perfectly understood on the turf that no cock-tail, that is, no horse not fully thoroughbred, has the faintest chance of winning a race. Sir John Fenwick said, so long ago as in the reign of Charles II., that every blood horse, even if he be

"The meanest hack that ever came out of Barbary is so infinitely superior in courage, stoutness and quality, both of bone and sinew as well as blood, to the best cold-blooded mare that ever went on shodden hoof, that he cannot fail to improve her stock, whatever may be his comparative standard among racers."

His comparative standard among racers, as racing goes, is, however, the one most important matter to be considered in buying and in breeding to certain strains of blood.

Certain combinations of these strains are successful or unsuccessful in proportion to the manner and degree in which they unite and develop the different qualities of the Darley Arabian, Godolphin Arabian, and Byerly Turk, and the most noted of their earlier descendants, such as Flying Childers, Lath, Herod and Eclipse. The science, born of experience, by which successful breeding for the turf is regulated is far beyond



A STEEPLE-CHASER.—AFTER AN OLD FRENCH PRINT.

form being given, excellence bears a very close relation to purity of blood. Frank Forrester says:

"No one in England would drive before his carriage or ride on the road anything but English hunters, if he could afford the price; and as to their powers for draught or burden, it is only necessary to say that men weighing twenty horsemen's stone,

the range of a magazine article. It is too complicated in its foundation, and is involved with too many collateral considerations to offer any attractions for the unprofessional reader, or to have, indeed, any general interest, save as illustrating the intricacies and difficulties which call for the practiced judgment of the successful breeder.



THE PRELIMINARY CANTER.—AFTER LEECH.

Breeding for the turf is a profession by itself,—one that aims only at a certain well-defined result, and which is important to the average horseman only as preserving in its purity the strains of blood to which he must appeal for the highest excellence that is possible in the saddle-horse of the period.

While breeding for the turf affords a sure means for maintaining purity of blood, its more modern development aims at producing qualities upon which the horseman must look with suspicion, and it often entails radical weaknesses which he must avoid. The tendency during these later years has been more and more in the direction of short, quick races to be run by very young animals, and the length of limb, and very early development for which this has called, are most unfavorable to the stoutness and endurance that are most important to be sought.

For all kinds of saddle-work, except the running of quick, short races, we need especially the wind and endurance which distinguish the four-miler. Indeed it may well be true that the best source at which to seek these qualities in their fullest development would be rather in this country, among the old champions of the four-mile "heat races," than in England, where, however long the course may be, the custom of running the heats, or the repeated running over the same course, fell much longer ago into disuse.

Serious alarm was expressed as long as forty years ago concerning the tendency of modern racing to destroy the best qualities

of the thoroughbred horse for general saddle use. The turf, with its attendant black-leg and blackguard surroundings, has always been encouraged in spite of these drawbacks as a means for "the improvement of the breed of horses." That is to say, it finds its justification as a candidate for public favor in the fact that it is important to any nation to provide a good source from which to procure the best possible cavalry horses, and that it is especially important to England, where, for both pleasure and business, riding is so general, to have a source from which to procure really good saddle-horses for the road and for the field.

In the last century, and in the early part of the present century, this object was achieved in a very high degree. In October, 1718, of the twenty-three matches made, all but one of them was for four miles. In 1719, the Duke of Wharton's Chanter was matched against Lord Bridgewater's Nutmeg for a race of six miles with a weight of 112 pounds. In the same year, the Duke of Wharton's Galloway, with 122 pounds, was matched against Lord Hillsborough's Fiddler, with a weight of 168 pounds, for six miles. In 1720 there were twenty-six matches at Newmarket, none of them less than four, and some six miles,—one match being for the best of three heats, or twelve miles, with 164 and 168 pounds respectively.

Exotic was on the turf from 1760 to 1771. He won eighteen matches. After he had been on the turf seven years, he won, at

Peterborough, a race of four heats. In 1737, Black Chance, five years old, won five King's-plate matches, every race being four miles, and every race contested. In 1738 he won two four-mile races, carrying 140 pounds. In the same year he lost one race by falling. In 1739 he won twice. In 1740 he won three matches, with 182 pounds weight, and one with 168 pounds. In 1741 he won three matches. In 1742 he lost once and won once. In 1744, when he was twelve years old, he walked over for the annual plate at Farnden, no horse daring to meet him. These instances of the great stoutness and endurance of the race-horses of the last century might be duplicated indefinitely. The horses of that time were most fortunate in having such artists as Seymour and Stubbs to perpetuate the record of their most magnificent forms. Stubbs was especially an animal painter of remarkable ability. Not only had he the artistic skill and the correct eye needed to enable him to reproduce what he saw, but he was one of the most accomplished anatomical draughtsmen of his day, and his works on anatomy are almost unrivaled by anything that has succeeded them. He gave more attention to the anatomy of the horse, drawing from his own patient dissections, than has any other student. The portraits which he has left, and in almost equal degree those of Seymour, have the full indorsement of the best breeders of that period as

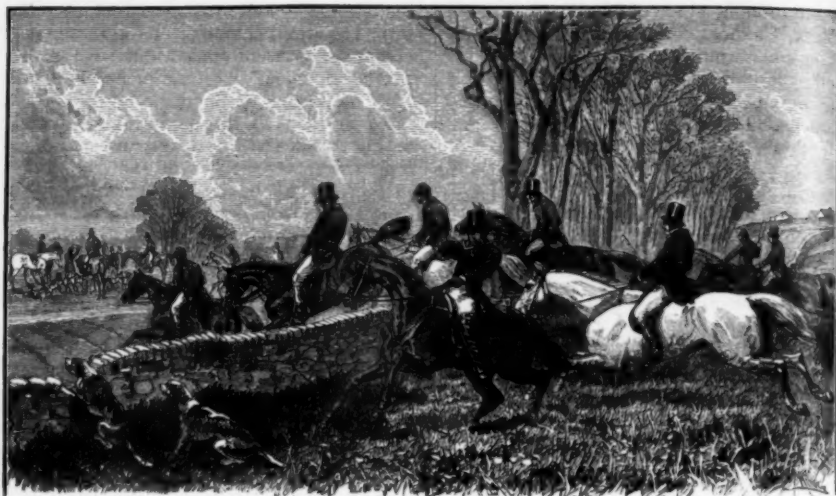
to their fidelity and life-like truthfulness. To show the grand character of the horse of a century ago, I reproduced in the November number Seymour's portrait of Sedbury and Stubbs's portrait of Shark.

By the end of the last century six-mile races had ceased to be run, and even four-mile races were only run for the king's plate. In 1809 the Jockey Club again lowered the standard by which the power of the race-horse had been tested, and began the system of degeneracy whose effects are so severely felt in the saddle-horse of the present day. A degree of speed not required for useful purposes with its accompanying length of limb and back and weakness of loin, has been substituted for the compact, muscular and wiry form needed for the perfect saddle-horse. The old racer united speed, stoutness and structural power in the highest degree. The modern racer has been bred almost exclusively for speed, and weights and distances have been so reduced that endurance and strength have become of secondary importance.

A comparison between the breeding to different standards as shown by the race-horse and the fox-hound, is instructive. The horse must run his short race in the shortest possible time, and the greatest skill is required to put him into condition for the one purpose of coming first to the winning-post. Though the successful racer may have shown many constitutional defects,



THE FIND.—AFTER FORBES.



THE DEATH.—AFTER FORBES.

the one item of brief quickness causes him to be selected for breeding, his speed perhaps going to his descendants but carrying with it very surely constitutional defects which are incompatible with the performance of any really good service. With fox-hounds, on the other hand, it is sought to quicken the speed of the whole pack and always to preserve uniformity of speed united with intense stoutness and endurance. The pack must work together that they may be always on hand to nose out the scent and that as many of them as possible may be in at the death.

"If one hound is more speedy than the rest of the pack, instead of being singled out like the racer to breed from, it is destroyed."

If we look at our race-horses as a breed, we perceive, with few exceptions, that the mass consists of the most weedy and useless animals. It cannot be questioned that the experience of the past forty years on the part of all who have been engaged in the breeding of fine stock of any kind sustains the theory advanced in "A Comparative View of the Form and Character of the English Racer and Saddle-horse during the Last and Present Century," which was published in London in 1836. This theory may be thus epitomized: In a state of nature, animals are of smaller stature than under domestication on rich lands; in the natural condition the animal has its fullest vigor, although its food may be scanty, as we see in the deer or wolf or fox, and the hare occupying lands of too poor

quality to have invited settlement by men; animals in the wild state, living near to good and improved lands acquire more size and less vigor, as shown by the difference between the horse of cultivated land, and the horse of scantily grassed downs, and by the deer of Windsor Park as compared with the deer of the Scotch highlands; an increase of size is attended by a loss of natural vigor and hardiness. The wild animal whose muscles have been hardened by arduous and constant work, in becoming fat accumulates adipose matter under the skin,—the muscles retaining their integrity,—while the domestic animal in fattening, hard work not being imperative during the growing age, accumulates fat within the body of the muscle which thus receives a flabby and un-serviceable character; in so far as the English race-horse has increased in size and in rapidity of development by reason of the rich food and the scanty exercise to which he has been subjected during growth, he has lost strength, vigor, and structural development; the degeneracy of constitution and the increased size resulting from the treatment have produced in the race a tendency to vibrate between coarseness and weediness. The instances adduced to prove this seem to be conclusive, and the theory seems quite sufficient to account for the manner in which the English race-horse has degenerated in the more valuable qualities and characteristics in proportion as he has been developed for speed alone. The application

of this theory to the question in hand is thus made in the work in question:

"Finding that our racers now oscillate between weediness and coarseness, the breeders naturally prefer a horse that is weedy, with speed, to one whose greater muscular power is attended with a loss of speed. They have provided for any conceivable loss of structural power by not calling on their horses to carry weight; and they have provided for a loss of stoutness by not calling on them to run more than the shortest distance. * * * *

"The result of so much interference on the turf with the laws of nature, has been exchanging the short back, short limbs, capacious chests, full sides and muscular character of the old racer for the long back, long limbs, flat sides, weak loins and delicate constitution of the modern one. If the breeder attempts to increase the muscles in the modern racer, their quality in most cases is coarse and the animal loses its speed; a coarse racer is scarcely fit for anything; it has all the constitutional feebleness of its race, without the speed."

In Stonehenge's "British Rural Sports," we find given Admiral Rous's "Scale of standard points for age," the highest of which, that of an aged four-miler, is only 139 pounds. The weight for half-mile races, even for aged horses, is only 121 pounds.

Stonehenge condemns as strongly as possible the modern practice of running young horses. Of running short races he says:

"Both Childers and Eclipse were five years old before they were trained, and such was the usual

practice in those days. As an instance of this, Miss Neesham was foaled in 1720, was first started for the king's plate at York in 1726, and continued to run every year until 1731, when she was used for two seasons for breeding purposes and produced Miss Patty. In 1733 Miss Neesham, now called Mother Neesham, won a plate at York, and again in 1734 she won two stakes at the same place, being in her fourteenth year. Such a case is unknown in these days, and even an eight-year-old running horse is a rarity seldom met with. Beeswing, it is true, ran and won good stakes in her ninth year, but she was a *rara avis*, indeed, and we may wait some time before we look upon her like again."

He gives as the grand desideratum:

"The production of a set of thoroughbred horses calculated to get good sound roadsters and hunters. Now, this is quite incompatible with the present system of breeding for the two-year-old market, and yet, while prizes often amounting to some thousands are within the probable reach of our best two-year-olds, it is scarcely to be expected that they shall be kept from grasping them. As, therefore, it is unlikely that the public will individually produce these much-needed horses, it is incumbent upon the government either to establish a breeding establishment for their manufacture, or else to offer prizes of some kind which may tempt the breeder to produce them. One or the other must be done, if the horse is to be restored to its former condition of hardihood, of constitution, and durability of leg, qualities which are now lamentably deficient in all our breeds of modern horses."

The perfect horse for general use,—the only horse which the government would be justified in protecting, for it is the only one



AFTER LEECH.

PAPA.—"Lucy! here! here's a gate!"

LUCY.—"All right, papa dear, you go through the gate; I think 'Crusader' prefers the fence."

VOL. XV.—11.

whose improvement affects the interests of the community at large, should be a good roadster, whether for saddle or harness, and there are race-horses which are good in both capacities. The qualities which it is important to combine are impossible without a very large infusion of thoroughbred blood. Yet, with most of the strains of thoroughbred blood we are sure to transmit constitutional defects of leg, wind, and foot, and even of muscle, which will quite defeat our purposes. As the case now stands, we are indeed unfortunate, unless we are exceptionally fortunate, in being obliged to resort to a source where native excellence has degenerated until it is difficult and generally impossible to avoid fatal defects. The only theoretically permanent relief is to be sought in a return to the original blood of the desert, increasing size gradually and carefully, and making speed secondary to strength and structure. The practical difficulties in the way of carrying out this theory, especially in the face of the unfortunate tendency of modern horse-racing, are very great and perhaps almost insurmountable, especially to a people to whom the saddle-horse has ceased to become a necessity in the every-day business of life.

Another influence which has led to the degeneration of the race-horse is the system known as handicapping,—the adjustment of the weight to be carried to the supposed capacity of the horse, as indicated by his age, his size, his pedigree, or his previous successes as a racer on the course. This imposes a penalty upon excellence, and tends to give mediocrity an equal chance of success. The handicapping is left to one experienced person, the highest weight to be carried being fixed by the race committee. The task of the handicapper is generally a taxing one, especially as a greater or less number of owners devote their energies to "pulling wool over his eyes," and are quite sure to revile him if they fail in their attempt.

Confining ourselves more strictly to the question of horse-racing as practiced at this time, we see that pedigree is far more important than structure or muscular development. In nine cases out of ten, the horse of the best winning blood, although of very faulty shape, will be sure to be a better performer than one of an inferior strain of blood. It still holds true of the turf that "an ounce of blood is worth a pound of bone."

The old racer was of somewhat low stature, generally under 15 hands; the

modern racer averages probably 15 hands 3 inches, but 16½ is by no means infrequent. It is not to be understood, while fault is found with the modern racer as compared with his remote progenitor, that he is not a remarkably fine animal, full of "quality," full muscled and strong in the sinews; in gracefulness and blood-like look and spirit he has gained rather than lost. For the work he is called upon to perform he is absolutely good, while he lasts,—the only trouble is that the work he is called upon to perform has been so regulated as to make too little demand upon his constitutional strength and endurance, so that these, having fallen into disuse, have become sadly reduced.

The race-horse is the product of a highly artificial system of nourishment and training, which call for the most careful judgment, indomitable patience and almost unlimited expense. During pregnancy the dam must be kept upon the most nutritious food, and after the birth of the foal its nutriment, shelter and exercise are such as to create the most rapid elongation of bone and the greatest capacity for long stride that it is possible to secure. Food, housing, clothing and exercise are costly from the start, and the business exigencies of the case require that the pupil be brought to the starting-post at the earliest possible age, that he may begin his career of stakes-winning, or be proven valueless and got rid of, before the expense has gone too far.

The training of the two-year-old, which is, except in degree, the same as the training of older horses, has for its purpose the removal of every ounce of superfluous fat; the accustoming of the heart to beating truly and well under vigorous exercise, and the development of the lungs, wind-pipe and nostrils up to a point that will enable them to supply copious draughts of air to arterialize the blood so rapidly circulated; the muscles must be hardened, the sinews toughened, the ligatures tightened, and every joint of the whole system made supple, free-working and enduring. The exertion to which the whole system is to be subjected, although but momentary, is to be the extreme exertion of which the horse is capable. The longest, most persistent, most severe and yet most judicious training is absolutely necessary to produce the required condition.

The training lasts somewhat more or less than six months, and is divided into three periods of about equal lengths. The horse

demands the constant services of a light boy, who rides him at his exercise, grooms him, feeds him, and rubs him, and increases or decreases his clothing at rest and at work according to his needs. This boy is under the constant observation of the chief trainer, who has experience in his duties and whose success depends largely upon the skill and judgment with which he regulates exercise and food with reference to their influence in developing the condition of the animal.

His first period of training is largely devoted to long-continued and oft-repeated walking exercise, with a little galloping now and then and with very rare copious sweats. The delicacy of the organization at this time is such that no undue strain or fatigue, or high feeding, would be safe. The purpose is now less to reduce flesh and develop hardness of muscle than to create a most vigorous and hearty state of health. The horse walks for one, two or three hours, the monotony and leg-weariness which continued walking produces being relieved by an occasional trot or very short gallop,—not enough to produce sweat or to affect the wind. In sweating, more or less clothing is used, and if it is the object to reduce a preponderance of flesh over the shoulders or hips or neck, this part is unduly loaded with blankets. Great attention throughout the whole course is paid to the quality as well as the quantity of the food. The allowance of hay varies from six to eight pounds per day; it must be at least one year old, must have been grown on dry land and must have been well cured. The allowance of oats, of the best quality, for an average horse, is eight quarts during first period, ten during second and twelve during third, with an addition sometimes of a quart of split beans. Physicking is much less copious now than formerly, and the tendency seems toward a still further reduction. As the practice of turf-men frequently involves the device of poisoning competing horses, the water given to the animal in training is usually drawn from closed and locked reservoirs. It is not unusual to keep a few fish as a test of the safety of the water.

In the second period of training the horse is sweated every week or ten days, and except in the case of very young ones, the gallop is generally four miles. There is also frequent sharp galloping without clothing, with a view, not only to getting rid of fat, but also to the opening of the windpipe and the exercise of the lungs. The

gallops are increased in length and severity very gradually, and, however much they may be quickened or extended, great care must be taken to avoid strains, break-downs and contusions.

The final period is only an intensifying of the second. It involves the exercise of the horse very nearly to the limit of his capacity, yet requires great precautions against danger. It is also desirable to accustom the horse to unusual sights and sounds, and especially to crowds.

"Many a first-rate horse, as tried in private, will never face a crowd, though he will take any amount of work, as long as there is no noise and bustle, and will do all that is required; but once let him hear the shouting of the crowd, or see them beforehand even, and his energies seem to leave him, to the extent often that he ceases to struggle, and, 'shuts up,' as it is called, at the 'distance,' or perhaps nearer home, apparently with the race in hand."

While vigorous effort is always demanded, great care must be taken to avoid the danger of "overworking."

"In this respect the horse may be compared to the bow of the archer, which may be tightened with advantage up to a certain point, but beyond that it ceases to shoot at the best rate, and will, in fact, break if the tightening is carried far enough, or will permanently suffer in elasticity and power, without actually snapping. So it is with the horse; up to a certain point, varying in every case, he may be galloped and sweated and fed, but in every case there is a turning-point which must be carefully watched and avoided by diminishing or by not increasing the food and work so as to steer clear of the dreaded result."

Throughout the whole training, and more especially toward its close, no item of the work is more important than constant and thorough leg-rubbing, which is simply a long-continued quick rubbing up and down with the palms of the two hands all around the hocks, knees, lower legs and pasterns, fully fifteen minutes being given every day to each leg. Generally, about a fortnight before the race, there is a private trial of speed for the double purpose of testing this and of stimulating the horse to a spirit of competition. When the racing-day has at last come, all of the years of anxious rearing and months of careful and costly training are to be tested by a contest of a very few minutes' duration,—success or failure being decided according as the horse wins his race, runs a good second, is shamefully distanced, or fails only because of some defect not referable to his intrinsic character.

In the race, the value of the jockey is

only second to the value of the horse, and there is probably no branch of horsemanship that calls for more judgment, skill, and coolness than race-riding. The principles of breeding are so generally the same, the sources of blood are so much alike, and the principles of training are so uniform that it is not often among the horses started that one is so immensely superior to the others that he could be trusted to win his race in the hands of an unsuccessful jockey. What the jockey should be may be inferred from Stonehenge's description of what the clumsy professional, or the inexperienced gentleman-jockey too often is :

"He begins by running his spurs into his horse's sides for fear of losing ground at the start, which sets him all abroad, changing his legs, and is in difficulties from the first. His horse, however, is so game that he recovers himself and answers his rider's call to go in front, which he reaches after a tiring struggle for the lead; he then recollects that his instructions are to lie second or third, and therefore he stops his horse again, perhaps causing him to change his leg. An experienced eye behind detects this and immediately comes at him, when in alarm he takes up the cudgels and runs at his antagonist, who gives way rather than distress his own horse,—having achieved his object. But he is not long left quiet; another fancies he can do the same, and tries with good effect, until at last, with the best horse in the race, he is unable to keep his place when a hundred yards from home, and instead of being an easy winner without whip or spur, is unable to obtain the slightest response from the severest exhibition of both of which he is capable. He goes in still, perhaps, flogging and spurring, with a loose rein, his horse extended to the utmost, and himself mortified and exhausted."

In England, perhaps more than here, there being so much more racing, the jockeys constitute a class by themselves; and, singular as it may seem to those who have only the popular idea of horse-racing, they are as a class honest men,—perhaps because honesty is the best policy, perhaps for some better motive. Their profession is a very dangerous one, and one in the exercise of which life and limb are constantly put in jeopardy. With the irregular life they lead, the nerve necessary for skillful riding does not last for many years, and as they pass their earlier manhood they are apt to become too heavy for their work. It has become of late years so general for an owner to order his horse brought in second or third that many jockeys consider it not dishonest to avoid winning, but they are rarely suspected of accepting a bribe from an outside party to disappoint their employers' orders. Stonehenge says that, taking them as a class, they are more honest than many of

their masters, but that they are sometimes known to take the bribe that would always be ready for them. "There can be no doubt, as a class they are above suspicion." A technical description of racing would be beyond the scope of this paper, as would any consideration of its moral influence on the community, or of that of any other form of gambling, whether in the stock exchange or in the grain market. Horse-racing is one of the facts of the world, and to those who are fond of fine horses and exciting trials of speed and endurance, it is one of its pleasantest facts. Those who are prevented, from whatever cause, from witnessing the sport, may form a good idea of it from the numerous capital pictures of Forbes, Herring, and others, two or three of which are reproduced here.

Whatever the effect or influence of the turf may have been upon the character of those who enjoy its performance, one good result must follow of necessity,—a contempt for the "trotting match" of the day. These matches bring together such an inferior class of horses, and, as a rule, such an inferior public, that no one who knows the higher development of the animal required for the turf, and the better average class of spectators which it calls together, can retain a very active interest in tests where the performance is simply to see how fast a horse can travel at less than his fastest gait. To me, there would be the same excitement and interest in a walking race as in a trotting race; if we go to the track to see how fast a horse can go over the ground we should by all means wish to see him go as fast as he can. Then too as all kinds of blood may aspire to the honors of the trotting-course, while only the best blood has the least chance on the turf, we must expect to find—and we invariably do find—pure breeding in the one and mongrel breeding in the other.

Those who attend horse-races only for their interest and excitement will usually be most gratified by the steeple-chase; for here the danger of serious injury to horse and rider in leaping, and the heart-stirring excitement that leaping produces even upon the spectator, are added to the simple test of speed. Steeple-chasing was formerly a race of several miles from a given point to a church-steeple visible in the distance. Each rider was permitted to choose his own course to reach his destination, over the route best suited to the capacity of his horse, with the simple restriction that he was never to ride

more than 100 yards at a time on a public road or lane. Later, the course was marked out by a committee, by pairs of flags between which it was imperative for the contending horses to pass. It was always possible for well-mounted spectators accustomed to cross-country work, to see all or nearly all of the race, but those who came in carriages and on foot could see it only at one or two points. This led to a modification, which is still in vogue, where an artificial course with hedges, stone-walls and water-leaps is laid out within the inclosed area inside the ordinary race-track, the finish being in front of the judges' stand on a flat reach. The fences have become conventional, and though of two or three sorts, these sorts are severally of about the same character, so that a horse trained to a steeple-chase track of one racing-field is probably fitted for any other upon which he may be required to perform. There is doubtless much compensation for the change in the fact that it is open to a much larger public, but the merit of variety is lost, and the horses are no longer required to be such skillful and competent jumpers as would be necessary for an untried course over a country which perhaps they have hardly seen before starting for the race. So far as its influence upon the breed of saddle-horses is concerned, save in the single matter of blood, the steeple-chase is far better than the flat race; for steeple-chase riders, a certain firmness of seat being necessary, are generally of rather solid weight, and the repeated strong jumps to be taken require more strength and capacity on the part of the horse than does running on the flat. The standard weight for steeple-chasing before handicapping was introduced, approximated 168 pounds. It now varies from about 125 pounds to about 180 pounds.

Steeple-chases are frequently run by horses something less than thoroughbred, the impure blood bringing in more size, but the mature strength and practice of age are essential, few horses succeeding before they are six years old. What is especially wanted is the weight-carrying power, and the leaping activity of the hunter re-enforced with the courage and endurance of a very high degree of blood.

The training of the steeple-chaser is the same in kind, though often less in completeness than that of the flat racer, there being carried on at the same time a system of practice over the bar and over small fences without disgusting the animal by too re-

peated jumping over the same obstacle. These practice-leaps should not be very difficult, for many a horse of excellent capacity will refuse to take in cold blood a leap which, in the race, or in following fox-hounds in company with a full field, would be taken with delight. There is no school for the young steeple-chaser to compare with the hunting-field with its encouragement to strong effort, for the anxiety to leap on the part of the horse should even exceed that of his rider. The rules of the steeple-chase are too technical to be repeated here, but as the race has for its object the winning of stakes, they are of course precisely and closely adhered to. The sport is essentially an English one. In this country the courses are short, and the number of entries is generally small, but in England it is not unusual to see twenty or thirty horses start across country, taking their leaps at the rate of twenty miles an hour. The course there is usually about four miles long, and includes an average of about thirty-two leaps with a long run in at the close.

Riding to hounds, or fox-hunting, may well be called the great national sport of Great Britain. It has been transplanted into every country settled by the English people, and is even pursued by the pleasure-seeking English colonists at Rome and at Pau, but nowhere does it find a development at all comparable with that which it has reached in its native country. In England alone there are kept about 100 packs of hounds, and it is supposed that throughout the hunting season, from November until the wheat is well started in the spring, there are from 5,000 to 10,000 horsemen in the field every day.

In a certain sense, there is no practical use in writing about fox-hunting for an American public. It is true that there are several semi-private hunts in the country,—one at least near Philadelphia being very like the real thing. There are also a few fortunate Americans who are able now and then to indulge in the sport abroad, but the number of American readers who will ever even see a fox-hunt is comparatively very small. Were one to write only for those who are to test one's lucubrations in field-practice, one would write for an extremely small American audience. But, happily, although our ultra "practical" methods of life and work, and our studious disregard of all sport, combined with the unfavorable character of our climate

have tied our population to chairs and buggyseats, there still runs in our veins much of that clear current, which was for so many generations kept throbbing by the active sports of our field-loving ancestors. Although our "saddler" is only a harness-maker, and although we know our horses only from the posterior view, there come moments to nearly all of us when the imagination leads us to wish, and makes us half believe, that the old equestrian life of our race were again possible to us. The real substance has gone, but the spirit is still left, and alive; fortunately for those who write about riding, it is the spirit and not the flesh that keeps up our interest in horsemanship.

Many of us may never ride again,—many indeed have never ridden at all save in the person of a long dead ancestor, but we all of us feel the equestrian instinct, which we are always glad to cherish, and which accepts kindly every description of the vigorous work of the hunting-field. Speaking after the manner of the Darwinian, our fox-hunting has become rudimentary. It is indeed often covered from view and unconsciously worn, but rudimentary though it is, it has not yet lost all life, and it responds, often with more than a feeble tingling, to the touch of suggestive description. I may not agree with the fox-hunter whom I once met at an inn in England who expressed it as his "idea of the acme of human enjoyment to ride after the hounds six days in the week, and lie abed and read 'Bell's Life' all Sunday;" still in my most strictly confidential intercourse with my own thoughts, I look upon the life of an English fox-hunter, who can afford to be well mounted, and who is comfortably lodged in a good hunting country, as the one in which a vigorous and accustomed horseman may find in the greatest degree that happiness which comes of perfect mental and bodily health.

As we here are debarred from an actual participation in the sport, let us seek as often as we can such reflection of its delights as may come with reading about it.

It requires real self-abnegation for a writer to admit among the lines of his lifeless description such realities as the drawings of Leech, but one would confess himself a false enthusiast who—having the chance—failed to show his readers precisely what it is that he is talking about. And here it is, in these few cuts from "Punch"—printed in this and the November number. Where was there ever a better lesson in female horsemanship than in the seat and spirit of the

damsel who is driving Crusader at his fence, in spite of papa; where a more inspiring sight—save to her baffled follower—than the maiden flying the hog-backed stile? Then look at the rascally boy taking the cream off his master's second mount. These are all reality itself; bits of every-day hunting-field life, fixed for all time for the information of those who, but for a pencil like this, would know the sport only through the dull words of the magazine writer. Look at the horses in all of these cuts. Leech used to complain that the engraver ruined everything he drew,—and he or they sometimes did take liberties with the strict rules of anatomy. But where else may we look to see such real portrayal of horse character? These horses are as individual as so many excited men,—we see just what they think about it all, and with what thrilling spirit they are doing their splendid work.

That the enthusiasm of the saddle is very widely spread among our people was fully evinced by the eagerness with which volunteers in the war of the rebellion sought enlistment or appointment in the cavalry arm of the service. Indeed, the attraction of the spring and autumn races all over the country is by no means confined to, nor does it largely depend upon, the inducements they offer as a field for betting. Where one attends for the opportunity to bet money, ten are actuated solely by their desire to see fine horses well ridden, and among the crowd there is far less interest in the winning of the race than in the way in which it is run. This is especially true of the steeple-chase.

The number of persons in this country who can afford the time and expense needed for the real enjoyment of riding is limited, but the number of those who hope to enjoy it in the future is very large.

The success of several hunts between Philadelphia and Baltimore—at least one pack of hounds having been kept up for more than a century, and still affording capital sport throughout every winter—indicates that we may still hope for the considerable extension of the sport. In England, in former days, fox-hunting was really hunting. The whole field of horsemen took an active interest in the pursuit of the fox and in the encouragement of the hounds. Latterly, although the number is by no means small of those whose interest is centered in the working of the pack, the fox-hunt is really a race across country with a pack of hounds to mark out the course. To the best riders it is little more than a capital

modification of the steeple-chase. To the inferior riders it gives an opportunity to witness more or less of the exciting run, according to their ability to keep the field in view. The descriptions of fox-hunting given in English books, and even the more minute directions for the practice of the sport, have always seemed to me to assume an amount of preliminary knowledge concerning it that is not often found here, so that it may be worth while briefly to describe its practice.

Scattered over the country at intervals of probably twenty or thirty miles are the headquarters or kennels of the principal "Hunts." Each hunt is under the control of an M. F. H. (Master of Fox-Hounds) who is the absolute and despotic ruler of the sport. He fixes the places of meeting, and controls in every way the manner of the hunting. Sometimes he is a person of great wealth who bears the entire cost—and it is very great—of the hounds, huntsmen, whippers-in and other servants, and of the considerable number of costly horses that these servants require. Sometimes the pack is kept up by subscription, and sometimes the subscriptions serve to make up so much of the cost as the master is unable or unwilling to pay. The sport is open, without restriction, to all, rich or poor, who may care to join in it. Occasional visitors, even when riding with subscription packs, are not expected to contribute; but one who means to hunt at all regularly subscribes ten guineas or more according to circumstances,—and always according to his own discretion. In some hunts strangers are always welcome, in others they are tolerated, and in others they soon learn that their presence is not a source of delight to the regular habitués. A novice is always regarded with suspicion until he evinces a skill and modesty which show him to be desirable or at least entirely unobjectionable. The foregoing applies especially to gentlemen. Those who simply wear the garb of the order and are obviously unfamiliar with its manners and customs can make themselves welcome only by an exhibition of the boldest and most successful horsemanship and of an entire absence of self-conceit. It is recognized among horsemen, the world over, that thoroughly good riding, under the varying and difficult conditions of cross-country work, implies qualities of head and heart which all thorough horsemen must recognize. The proportion is often large of poor people who turn out with every meet, mounted on ponies, cobs, plow-horses, or

anything else that is able to carry a man, or even not mounted at all, but trusting to a nimble pair of legs and to a good knowledge of the country and of the habits of the fox to enable them to see a fair share of the sport.

The meet is generally appointed at eleven o'clock. The hounds—usually from twenty to thirty couples—are kept well together and a little at one side by the huntsman and two or more whippers-in. The master of the hounds and his servants, as well as the regular members of the hunt, and many of the farmers who ride regularly, are dressed according to the prevailing fashion,—usually with red coats, white or brown cord breeches, and top boots. The conventional head-gear is the stove-pipe hat, which is the safest of all protections against the accidents of a fall, save perhaps the stiff jockey-shaped cap worn by the huntsmen, by many of the farmers and sometimes by the master himself. As the hat is very liable to be knocked off when riding among trees or in leaping through a "bull-finch," it is fastened to a button of the coat by a cord which passes through an eye in the back part of the rim. Occasional riders, and those who wish to avoid the responsibility for their horsemanship implied by a red coat, wear black coats, and often either boots with black tops or without tops, or even cloth or leather gaiters fastened over the lower leg. Some of the get-ups are of the most natty description, and it is important for the more elegant to appear at the meet in the most spotless gear. Those who ride to the place of meeting often wear overalls, and those who drive are otherwise protected against flying mud.

The first fox-hunter I ever saw in the flesh stood at the door of the Regent Hotel in Leamington, with a light overcoat over his scarlet and with a white apron, fastened over the neck and by a strap tied around the waist, reaching to his feet in front,—very like the apron of a well-regulated butcher. It was a sloppy day, threatening rain, and this gentleman's servant would possibly spend much of the night in removing the mud and stain with which every part of his clothing would be coated. He must appear in virgin purity at the meet, although the first five minutes' run might splash him from head to foot.

The hunt having assembled, saddle-girths being adjusted, and the road-horse or the dog-cart being exchanged for the hunter,

the hounds are sent into the cover,—usually a small bit of woodland thickly grown with a tangled mass of underbrush and briers, where, if they are fortunate, they sooner or later find a fox and start him out into the open, following him with an eager but whimpering cry, and stimulated by the voice of the huntsman and his assistants. "Tally-ho!" is called, and the whole field, numbering from one to two hundred, start in pursuit, the best men following straight in the wake of the pack and the more prudent seeking such roundabout ways by gates and lanes and public roads as will keep them as near as they dare go to the line of chase. The pack follows the trail of the fox—by scent—at a very high speed until he is come up with or driven to earth, or until the scent is lost by some one of his many shrewd devices, such as doubling on his course, following in the sulphurous wake of a passing railway train, or taking to cover where the thick undergrowth checks the speed of the pack. The hard riding comes in the straight brush across country, and if this is long continued and interrupted by

difficult leaping, the field is soon trailed out until only the best men are near the front. At a check, many of the stragglers come up, and blown horses have time to rest, so that at the next start there is still a good field in pursuit, but the number of those who are in at the death or within sight or sound of it, bears very small proportion to the number gathered at the meet. The fox, if killed, is seized by the huntsman, who makes it a point of honor to be near at hand, and is held aloft until those who are near have come up. The voracious and howling pack is kept at bay with the lash. The fox's mask (head), brush (tail) and pads (feet) are cut off and distributed,—nominally among those who were in at the death, but practically, in these degenerate days and unless the master interferences in behalf of some plucky lad who has kept well to the front on his pony, or of some guest who has distinguished himself by his riding,—among those who have tipped him with a half guinea and bespoken a trophy. The carcass is thrown to the pack and is torn from mouth to mouth, being devoured in a twinkling.



A TRYING THING FOR TOOTLES, WHO SEES THE OBJECT OF HIS ADMIRATION FLY OVER A HOG-BACKED STILE, HE HAVING THE GREATEST AVERSION TO TIMBER. [AFTER LEECH.]



AFTER LEECH.

RASCALLY BOY (with delightfully fresh animal).—"Oh, dear! What a beautiful thing! I wonder where master can be?"

Sometimes the whole day is consumed in "drawing" one cover after another without finding a fox, and sometimes in chasing the fox from cover to cover until he finds an unstopped earth (a hole that has been overlooked by the men employed to close them), and the result is a "blank day." If the fox is lost or killed long enough before dark, another cover is sought and another fox run, and sometimes another and another. The enthusiastic devotees of the sport hold on until the last chance for finding another fox is given up, but as the sun gets lower and lower, more and more of the field withdraw and ride their tired nags over the long road home. I once left the field at dusk for a ride of eleven miles home through the rain. I asked a hale old gentleman of nearly eighty who lived near my hotel if he would accompany me. He replied, "No, they are going to draw another cover, and, as I cannot hope to see many more seasons in the saddle, I do not propose to miss any of the chances of this one." He was out again, hale and bright the next day, although he had reached home only in time for his eight-o'clock dinner.

The question that arises in this country when the introduction of fox-hunting is suggested is that of the opposition of the farmers. The sport involves the protection of foxes, resulting in a certain amount of damage to poultry, and more or less injury

to fences and crops, but these objections could probably be removed by some proper system of compensation. What is here more serious would probably be the question of trespass; and certainly as farmers are their own landlords and are subject to no restrictions, such as are imposed in the almost universally prevalent leases of England, it would, of course, be in the power of any farmer or other land-owner to forbid entering upon his land. One or two objectors in a neighborhood would suffice to make anything like satisfactory work impossible. This could be overcome, if at all, only by establishing such relations between the hunter and the farmer as exist almost everywhere in England. There, farmers themselves enter very eagerly into the sport, and enough of them ride regularly to establish a public sentiment in its favor, and to drown any objection that might arise in their own class. When damage is done to poultry or to fences or to crops, compensation is always given by the master, but it is considered not at all the thing to ask damages unless the injury has been quite serious. After all, the account is found to be very largely in favor of the farmer, even though he is subjected to some loss from the causes referred to above. Fox-hunting invariably brings into the country a very large number of horses, creating a demand for forage on which the extra profit over the price it would bring in

a distant market is very far beyond the damage done. In Pennsylvania, Delaware, and Maryland, where fox-hunting is still kept up, no serious difficulty has arisen, largely for the reason that the whole or nearly the whole of the hunt is made up from the ranks of the farmers themselves.

It is of course unlikely that in any neighborhood in this country it would be possible, nor is it desirable, to establish fox-hunting upon anything like the costly scale of a crack English hunt. There are many men in England who hunt from four to six days in the week; many of them ride two horses each day, and rarely bring out the same horse twice in one week. From no point of view can it be pretended that English fox-hunting is anything but a very costly pastime.

I know a hunt in this country where about twenty couples of hounds are kept,—where the huntsman is a vigorous countryman who acts as his own feeder and whipper-in, where the master of the hounds is still in business, and where the members of the hunt are mainly the men of the neighborhood with a few members from a somewhat distant city, mainly men of affairs who only now and then get a day after the hounds. Occasional riders, unless they are personal friends of members, are not encouraged to participate. There is an almost entire absence of English saddlery. The costumes are very much the same that these men wear daily about their farms, and what is most remarkable is that the horses ridden are the underbred horses of the country. The cost of maintaining the pack must fall very lightly upon the members of the hunt. The sport is quite different from the modern fox-hunting of England. It is more like the hunting of a century ago, from which, indeed, it is an offshoot.

The country is a very rolling one; fenced with stiff rails, and with less difficult snake-fences. It has much wood, many brooks and not a few swamps. The pace is very much slower than in England but the route compels an amount of difficult leaping for one who cares to go straight after the hounds, that would do no discredit to the hardest riders of the mother country. I have seen four or five members of this hunt go over a post-and-rail fence that would turn many a crack English fox-hunter, and in one instance where a string of cordwood had closed the end of a lane that had been open the previous season, an excited rider (light weight) took it rather than turn back and lose ground.

In England it is supposed that the scent will not lie when the ground is frozen, and that snow is quite fatal to it. American hounds, however, have had their noses cultivated to such a point that they carry the trail over a crust of snow without difficulty, and I have seen a pack in Pennsylvania nose out the scent under an inch of light snow that had fallen upon this crust since the fox had passed over it.

It is often objected to fox-hunting that it is a dangerous sport. Of course it is dangerous, so is railroad travel, so is driving, so is nearly every condition of life; but nothing is more clearly demonstrated by the observation of the past two centuries than that one's chance for a long life is far greater with a very liberal facing of danger in any form of field sport, and with the attendant exercise and exhilaration, than in the tamer existence of which are born bad blood, dyspepsia, and premature old age. Now and then it is true, a man is killed, but this is extremely rare, and even in this case if we estimate the amount of happiness that he has got out of his life, and the degree to which he has transmitted a capacity for happiness to his descendants, we shall consider both him and them far more fortunate than where death came a few years later at the hands of an ignorant plumber, or a bad cook, and where a timorous heart and a weak frame have struggled for years against the torture of delicate health, and have founded an inheritance of misery as the most lasting achievement of a weakly spent life.

The foregoing papers have been written with no utopian view as to the probable or even possible future of the saddle-horse in America. The tendency of the times is all against him. The grave seriousness of our lives, the overpowering necessity for money-making, the keen intellectual development leading to sedentary life, the need for wheels to transport our women, and the fear of personal injury which so generally actuates those who lead a tranquil existence,—in a word the effeminacy toward which we seem to be surely drifting,—are constant influences bearing away from anything like the brutal health and energy needed for enthusiastic devotion to horsemanship.

Without enthusiastic devotion, horsemanship is nothing, neither an art nor a pastime,—it is simply a bore. If it is not one of the leading objects of life, it is quite sure, under the conditions which prevail here, to drop out of one's existence. In England,

many may ride because riding is the custom, —here, on the other hand, riding is a rare exception, and it is quite sure not to be practiced or at least not to be continued save by its ardent devotees. Our ardor and devotion lead in other directions, and

it is hardly to be hoped that what is written about saddle-horses, here or elsewhere, will have any better effect than to recall the reader now and then to the memory and traditions and delights of an art whose practice is fast dropping out of his race.

ANTS.

THE economy of the bee-hive, wonderful as it is, yields in interest to the marvelous social life among the ants. There is no less forethought and wisdom, no less orderliness and careful provision against danger, among the ants than we have already found among the bees. The care of the larvæ is even more arduous, and the supervision of the young more perfect. Besides this, only the domesticated bees have been fully and accurately studied, while there are so many varieties of ants, each with its own peculiar social life and habits, that the range of observation is wider, and the facts more numerous and more curious.

Primitive society shows scarcely a phase which has not its prototype among these tiny creatures. There are nomadic ants who gain their subsistence by hunting; pastoral ants who have great possessions in flocks and herds; warlike ants who seize upon the richer domains of their weaker neighbors, and live upon the spoils of battle; slothful but valiant ants who enslave other tribes and force them to labor in their behalf; provident ants who gather in and harvest the native grain; agricultural ants, who farm and house their crops.

There are, in all ordinary cases, among each colony of ants, as of bees, three kinds of individuals,—females, males and workers, the latter being undeveloped females. The males and females are generally winged, and are developed in enormous numbers. When mature they fly out of the nest. Unlike the queen bee, the female ants do not mark the home which they leave, and so do not return after fertilization. The workers in the nest from which the flight has been effected usually manage to capture a fertile queen from the myriads in the air at swarming-time, or from those who have been fertilized on the ground. They hold her in mild durance till she seems content to stay; when she gets rid of her wings by “un-

hitching” them herself, or by permitting her subjects to do so. A few of the fertile queens from the same colony, which have managed to save themselves from their enemies the birds, and from other dangers, go into the ground and found a new colony. It was formerly supposed that a queen ant did all the work for the infant colony,—that she laid the eggs, and performed all the necessary offices for her offspring, till a sufficient number of workers were matured to assume the responsibilities of the nest. But the latest observations suggest that she has assistance from the first, as some workers are generally found hidden away near the nest.

The single fertilization of the queen is sufficient to make her fecund through her life-time. Whether or not a parallel to the parthenogenesis of the bees is to be found among ants, it would be impossible to say, though certain phenomena point that way. The deposition of each egg by the queen bee in a cell peculiar to the sex, makes easy an investigation which would be extremely difficult if not impossible among ants. As soon as the ant queen lays, her minute eggs are taken in parcels into the mouth of a worker, carried away, deposited in some favorable place and cared for. As their position is changed usually twice every day, to follow the fortunes of an ant from its earliest development seems utterly out of the question.

After the general flight of the winged insects most of the females and all of the males perish, unless by a very rare chance one of the latter, forlorn and wingless, makes his way into a nest. In this case no hostility is shown toward him by the workers; on the contrary he is treated kindly and is fed by them.

Both ants and bees belong to the hymenopterous group of insects; and their internal structure and external organization

are, in many respects, almost identical; only the distinctive features will therefore be noticed. Fig. 1 shows that the body is divided into three parts,—head, thorax and abdomen; the legs and mouth—appen-

ment of the aliment, sending it up or down as the case may require.

The poison apparatus in those ants which do not sting, opens out into the cloacal chamber just above *a* [Fig. 1]; in those which do, it opens into the sting. [See Fig. 3.]

In order to determine the part played by the different portions of the alimentary canal, ants may be fed with honey, colored with prussian blue,—a substance which seems to produce no deleterious effect upon them.

M. Forel allowed thirteen worker ants to fast for a number of days till their bodies became quite small. He then took four of these and gave them the blue honey "*à discrétion*," as he says. They began to lap with avidity, and in a short time their abdomens were three times their former size. One of these gorged workers was then removed to a bottle in which the remaining nine starved ants were imprisoned. It was immediately surrounded, caressed and licked by its hungry companions. One little worker began



FIG. 1. DIAGRAM OF ANT (*BRACHYMYRMEX HEERI*). SEEN FROM SIDE WITH LEGS AND MOUTH APPENDAGES REMOVED TO SHOW PART.

z, z, z, z, Dorsal layers of four first abdominal segments; *r', s', s', s'*, ventral layers of same; *y*, pygidium; *p*, pedicel; *a*, anus; *c*, chaperone; *e*, eye; *a*, antenna; *b*, jointed end of antenna; *s, s*, stigmata, or ocelli; *d*, palps. [After Forel.]

dages of one side—having been removed to show the parts. The organs of sense are situated in the head, the principal muscles in the thorax, and the main organs for the maintenance of its own life and the preservation of the species in the abdomen.

The alimentary canal includes the mouth, buccal sac, gullet, crop, gizzard, stomach and intestine. The buccal sac is a sort of cheek-pouch; this curious organ is wanting in the bees; it was first discovered in the wasp, and was supposed by its discoverer to be subservient to the purpose of constructing its paper comb. It is, however, always found in the ants, where it could serve no such purpose. It is a perfectly spherical sac, situated in the anterior portion of the head just below the pharynx, with which it is in free communication. The walls of its inner surface are roughened by a layer of cells, which, however, do not appear to be secretory; it is always filled with particles of food, but its real office is not known. Just within the abdomen the œsophagus widens out into a crop, Fig. 2, C; below this is the gizzard [*gesier*], G, which is a most singular organ. Its walls, in their upper portion, *g*, are formed of four strong chitinous lamellæ made by the thickening of the internal tunic; these four sepals, as they are called, are bound into a tube by an external muscular layer and the transparent tunic. Below, the sepals which have been approaching suddenly, diverge and strengthen the spherical pouch, *g*, by four strong semi-meridians; the gizzard terminates in a tube, *m*, which enters the stomach, S. The crop is the honey-sac of the worker ant, in which it retains for a time such food, usually honey, as it regurgitates for the benefit of its companion, or the young. The gizzard controls the move-

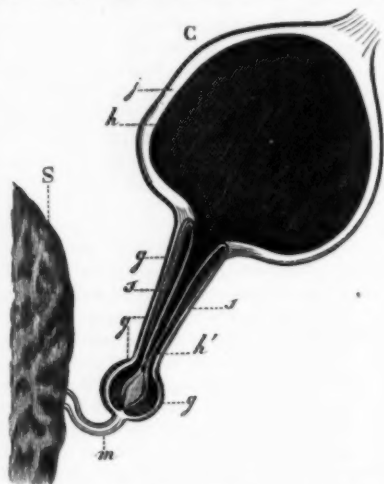


FIG. 2. CROP AND GIZZARD (JABOT AND GESIER) OF NEUTER OF *CAMPONOTUS LIGNIPERDUS*.

C, Crop; *f*, walls; *h*, blue honey distending it; *s, s*, sepals in gizzard; *g*, gizzard proper; *h'*, limit of the colored honey; *m*, tube; S, stomach. [After Forel.]

coaxing (it seems almost a pity to translate the "*se mit à l'implorer*," even into coaxing). It soon touched the heart of its former companion in misery: a drop of the blue honey was regurgitated to be appropriated by the little coaxer. A second,

a third and then a fourth drop was dispensed in succession, the abdomen of the giver visibly decreasing while that of the receiver as noticeably increased. But turn about is fair play, even among ants, and the little gourmand was entreated in her turn; and, in her turn, yielded up her honey. And so it went, till at the end of two hours the hearty meal of the first worker was pretty equally divided between herself and her nine starving companions. The ten were then dissected, and their crops found filled with blue honey, not a drop of which, however, had entered the main body of the gizzard; it had, of course, not penetrated to the stomach.

Figure 2 is taken from one of these ants fed with blue honey, *A* being the colored honey which goes down to *h'* and there stops. The other three gorged workers were then dissected and the same thing was ob-



FIG. 3. POISON GLANDS OF WORKER.

w, Walls of gland; c, body formed by folding of excretory duct; g, g, tubes of gland; a, accessory gland. [After Forel.]

served, except that the crop was so enormously distended as to fill four-fifths of the abdomen,—pushing all the other organs behind or beneath it. The crop reached to the fifth abdominal segment, and yet not a drop had penetrated farther back than the sepals of the gizzard. After several days, ants thus fed seem to feel justified in getting some personal benefit from their meals; the contents of the stomach then begin to show coloration, and after a time become as deeply colored as the crop, with a blue more or less impure.

The alimentary canal of the ants, like that of the bees, we see is divided into two parts; the anterior being devoted to the welfare of the community, and the posterior to its own. It is a remarkable fact that in each variety the digestive canal has the same structure for the three sexes, and yet

the males never have to disgorge,—they merely receive. The function of the gizzard, which has been unfortunately named, is not to comminute the food, but to regulate the movement of the aliment,—to close the stomach against the entrance till the proper time shall have come for its reception.

Ants have a very acute sense of taste, which seems to reside principally in the tongue. This organ is utterly unlike the labium of the bee, and more nearly resembles our own tongues.

It is a tiny yellow tubercle, situated in the lower jaw, Fig. 7, supplied with several rows of gustatory papillæ, *g, g*, in which nerve fibers terminate. On the maxillæ or jaws similar papillæ are found, Fig. 8, *g*. That the sense of taste is very acute no one could doubt who had watched these little creatures, and seen how delicately they choose their food, and how quickly they perceive the mixture of any bitter or distasteful substance with it. Ants seem to be entirely deficient in the sense of hearing, which is moderately acute in bees.

The eyes of ants, like those of most insects, are made up of multitudes of facets; it would seem that their vision is more perfect than that of bees, any want of adjustment in the focus with them being of less consequence, as they do not need to see from any great distance. The eyesight of the males in each community is



FIG. 4. NERVOUS SYSTEM OF ANT.
a, nerve of antenna; c, optic nerve; d, lobes of brain. [After Forel.]



FIG. 5. HEAD OF HERMAPHRODITE ANT.
M, Male side; W, worker side. [After Forel.]

best, and that of the workers worst. The powers of vision seem to bear a direct proportion to the number of facets, of which the eye is composed; this number ranges

from 1 to 1,200, in the Swiss ants, very rarely reaching either extreme. The senses of touch and of smell reside in the antennæ. In certain varieties the latter sense is very exquisite, in others it is deficient. Ants deprived of both antennæ show an entire loss of instinct, but this seems manifestly due to that fact that they thus lose the power of giving and receiving impressions; not that the brain is really touched, for the poor, mutilated little creatures may be seen trying to inform themselves with their feet, their palps or their heads, making unaccustomed movements with these organs.

It is very singular that while the deprivation of their antennæ will deprive ants of their instincts, and utterly incapacitate them for their wonted employments, the loss of the entire abdomen leaves them with the ability to run about, to take care of their young, to recognize friends and foes, and to fight. They even show more than their usual dauntless courage when so mutilated. Any very great effort, however, is apt to be followed by a convulsion, and at most they do not live more than two days.

It is certainly very curious to find symptoms among ants of brain-trouble suggestive of our own. Any serious injury to the brain is usually followed by convulsions. In the



FIG. 6. REPRODUCTIVE SYSTEM OF HERMAPHRODITE.

O, Ovaries; T, Testes with tube, vasa deferentia and imperfect ovary. [After Forel.]

When irritated it made perfectly co-ordinated defensive movements, but fell back into a stupor when let alone. It showed no normal impulses, not even the elementary instincts of fear and of self-preservation. It was, in fact, very strikingly like the pigeon from which Flourens

had taken the cerebral hemispheres—a mere automaton. Some workers after brain injury show an imbecile rage, throwing them-

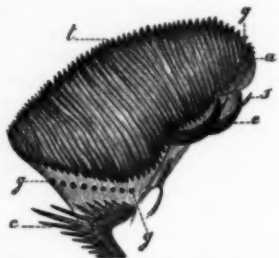


FIG. 7. TONGUE OF WORKER.

a, Tip; g, gustatory papillæ; e, chitinous lamellæ; f, hairs on lamellæ; c, comb. [After Forel.]

selves alike on friend or foe, and striving to destroy them.

On the other hand the severed head, if the ganglia nearest the brain be uninjured, retains the entire intelligence of the ant. It recognizes friends, implores help, fights its enemies, and, indeed, appears to suffer very small inconvenience, except that when it tries to walk on its fore legs it constantly falls backward, evidently forgetting the loss of its body and hinder limbs.

Such observations leave small room for doubt that the entire intelligence of the ant resides in the brain, the presence of the adjacent ganglia apparently doing no more than to prevent any injury to that part of the brain lying nearest them, and this statement receives confirmation from another observation made by Forel. Among the ants as among the bees, there are occasionally found individuals, partly of one sex and partly of the other, or hermaphrodites [see Figs. 5 and 6]. In some cases this mingling of sex is external merely, in others it is internal, and in others again a combination of both. Fig. 5 gives a most curious instance of hermaphroditism by sides, and Fig. 6 that of the internal reproductive organs; but the case to which particular allusion is now made is of an ant which possessed the head, and consequently the brain of a worker, while the remainder, both externally and internally, was half male and half worker. This ant showed every instinct of a worker to a perfect degree, performing all those offices which fall to its lot, but which are never performed by either a male or a perfect female. The head of the little creature being worker, its whole duty in life was determined.

Nothing is more noticeable in the econ-

omy of an ant's nest than its perfect cleanliness. They not only keep their homes clean, but bestow the utmost care upon their own personal neatness and purity as well as upon that of their companions, their larvæ, and their pupæ. On the feet, Fig. 9, there is an outgrowth of hairs which serves the purpose of making and keeping them clean. The upper joint of the tarsus, *b*, and the spur, *c*, are both so articulated upon the tibia, *a*, that they constitute, with the hairs that border the inner sides of both, two brushes, which can withdraw from, or ap-

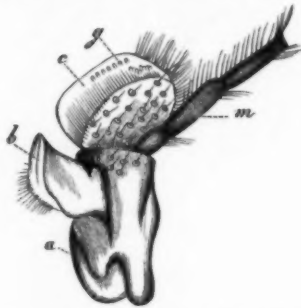


FIG. 8. JAW OF ANT, FLATTENED AND SEEN FROM INTERNAL FACE.

a, b, c, Three first maxillary palpi; *c*, gustatory papillæ; *m*, maxillary palp. [After Forel.]

proach each other according to the thickness of the object placed between them. It is the spur and tarsus of the fore feet which are most used; with these the ant combs out her antennæ, her head, her palps, her mandibles, and also the lower posterior parts of her body. In fact, she makes pretty much her whole toilet with these brushes. Those upon the other fore feet take care of her back, the feet themselves rub together to cleanse each other, as flies may be so frequently seen to do, when they appear to be congratulating themselves on some stroke of good fortune. The brush is cleansed by being taken up by the mandibles and passed through the mouth, the comb, *c*, Fig. 7, at the base of the tongue aiding in the process.

The young are cleansed, not so much by the help of these brushes, as by the mandibles, which take off the larger particles of dust, the finer portions being removed by the tongue, Fig. 7, and the maxillæ, Fig. 8. "Nothing is so charming," Forel says, "as to see the delicacy with which the tender nurses acquit themselves of this duty; not the smallest particle of dust is allowed to remain upon their charges."

The care of the young begins from the

moment an egg is laid,—by the queen, or sometimes by a fertile worker. The eggs, which are almost invisible to the naked eye, —elongated in form, and opaque, white or yellow in color,—are taken in small parcels, in the mouths of the nurses, and deposited in some favorable spot. From this time the attention of the nurses is unremitting; the eggs are constantly licked; it is possible that some nutriment is supplied, as well as cleanliness insured by this attention, for the eggs grow, curve around at the extremity, and become transparent. The eggs, which are to produce queen, male and workers, are identical in size and shape.

The larva, which hatches out in fifteen days, is entirely dependent for its existence upon the nurses, who feed it with regurgitated food. It is not able even to take the honey placed beside it, but when it gets hungry moves its head from side to side, and the nurses then supply the food which it eagerly eats. Every day each one of the thousands of young in an ant-hill are carried to the upper chambers to get the warmth of the sun, and each night they are again removed to the depths of the nest for protection from chill, except in rainy weather, when they are left below. For some time after they are hatched, no distinction between the sexes can be made out. The larvæ at times remain undeveloped for a very long period, some of those hatched out in the fall not becoming perfect insects till the following July.

After the larva enters into its pupa state, it still requires the care of the nurses; some of them spin cocoons, others are naked: though neither kind takes nourishment during its pupal state, the nurses carry them up and down stairs, and are continually cleansing them. The cocooned nymphs, or pupæ, can rarely extricate themselves from their case. The workers tear these carefully open, and draw the weak, flaccid things out. If this is not done they usually perish.

After this the pellicle which still surrounds the delicate little creature is removed; if it be a male or female the wings are carefully unfolded, and even then the work of the nurses is not over; for several days they follow their little charges, feeding them and



FIG. 9.
c, Spur; *b*, tarsus.

teaching them their way through the labyrinthian galleries and corridors of the nest. These attentions are continued to the winged insects till they take their final flight.

One of the most curious things in the social economy of the ants is their relations with the *Aphides*. These little insects (familiarily known as rose-lice) constitute the milch-cattle of the ants. Wherever the aphides collect there the ants follow them. The aphid penetrates the tender bark of a twig and without intermission absorbs its sap; this, after undergoing the process of digestion, appears at the posterior extremity of the body (and not from the setiform tubes on its back as has been supposed) [Fig. 1, *a*] as a saccharine fluid, very much like honey,—it is in fact the honey-dew found upon the leaves of plants. If the ants are near, as is usually the case, they immediately suck up the sweet liquor; if not, the aphid ejects it to a distance. When the aphid fails to yield up its honey, the ants beg for it by patting with their antennæ the sides of the creature till the precious drop makes its appearance. In tropical countries the *cocci* afford their nutriment in the same way. These aphides are taken possession of by colonies of ants; if their right of ownership is disputed they fight fiercely in its defense. A guard is established, and stationed to watch and protect the flocks and herds of a colony; in some cases a tent formed of decayed wood, made into a sort of *papier-mâché*, is erected over them, to protect them from the weather.

The *Formica flava* gathers around it herds of aphides, which it houses in underground stables, the food supplied the cattle being the succulent roots of plants which have penetrated the apartments. The eggs of the aphides receive no less care from the ants than those of their own queen; and in case of danger are no less jealously protected. Ants, in temperate or cold climates, where they hibernate during a part of the year, live almost entirely upon the food supplied by the aphides, both the masters and their cattle becoming torpid at the same temperature.

In tropical climates these little creatures provide for their wants in many other ways. The foraging ants—*Ecitons*—live solely on insects or other prey; they are in fact hunters, and are forced to become wandering tribes, for when one hunting-ground is exhausted the encampment breaks up, and with their females and young they seek new fields. They advance in mighty armies,

sometimes three or four yards wide, and form 200 to 300 yards long, fairly blackening the ground over which they travel. These moving columns are composed of workers of various size, officered, at every two or three yards, by larger and lighter-colored individuals, which are seen to stop very often, or run backward, delivering orders by crossing antennæ with some of the line. Bodies of scouts are sent out from the main column, which peep under every stone and fallen leaf, and into every cranny. These flush the game,—to change the figure,—spiders, grasshoppers, and cockroaches. In trying to escape the foraging parties, these luckless creatures are apt to throw themselves into the very thick of the danger. If one of them falls among the main body of ants it is seized upon by myriads of its tiny enemies, and even a grasshopper rarely escapes; in a short time it is cut to pieces and packed away in a temporary receptacle. The head of an eciton is provided with a formidable weapon for the destruction of its victims [Fig. 10, *m*]. Spiders, in consequence of their quick-wittedness, most often escape,—though even these usually succumb to superior numbers.

There are, in warm climates, large numbers of leaf-cutting ants,—*Ecodoma*. They attack certain foreign trees most vigorously, the native kinds most to their taste having gone down in the long-continued struggle for existence. Between the nests of the

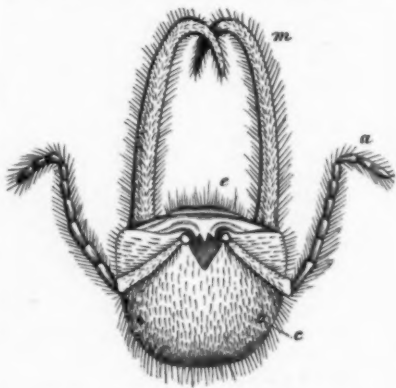


FIG. 10. HEAD OF FORAGING ANT,—ECITON.
m, Mandibles; *e*, lip; *e*, eye; *a*, antenna. [Regne Animal.]

cutting ants, and the trees they are visiting, two steady streams may be seen flowing to and fro, the first empty-handed going back for a load, the second bearing circular pieces of leaves, about the size of a ten-cent piece.

These pieces are cut from the leaves, by aid of their scissor-like jaws, and then borne to the nest; there the bits are carried by a smaller worker down into the nest, always at a certain degree of moisture, being rejected if too dry or too wet; and then after cutting it into small pieces the worker stores it away in an underground chamber. On opening these chambers, after a time, the minced-up leaves are found invariably covered with a white fungus growth, which probably forms the food of the ant. The small workers though they never carry the leaves, may be seen running along the paths with the others, but instead of helping they often mount on the pieces of leaves and so get a ride home. Besides the two cutting workers there is a huge kind of ant belonging to the nest of the cecodoma, measuring sometimes three-quarters of an inch; these are apparently the protectors of the community, who only appear in times of great danger, or on state occasions. Mr. Belt, from whom these facts are gathered, states that corrosive sublimate will set ants crazy. In two hours after sprinkling it across their paths, round balls of raging ants will be seen, struggling and fighting and biting each other furiously; some of them mutilated and others bitten in two. Red precipitate is said to produce the same effect,—a fact which might be useful in eradicating them when they become troublesome.

Mr. Moggridge has given some very wonderful instances of the providence manifested by the harvesting ants of Mentone. These little creatures seek the grass-grown lemon-terraces, climb the stalks of their favorite plants, cut and twist off the ripening pods of seed, convey them to their nests where they store them far underground in carefully prepared granaries. Some of these magazines are made of smooth clay, others penetrate far into the living rock, openings which the ants themselves had evidently excavated. This must have been accomplished by some chemical aid, formic acid perhaps, softening the stone. The ants somehow can prevent the germination of these stores of seed. This is done however, not by killing the seed, for they grow readily when removed from the granary and planted. It seems altogether probable that the ants allow the few germinating seed—found in the multitudes stored in each granary—to sprout; as, in a state of captivity, these same ants will eat only such as are softened by this process. The seeds after being gathered are carried down into

the nests with the husks on; but these are soon seen lying in tidy little heaps near the opening.

More wonderful even than these is the agricultural ant of Texas, which, according to Dr. Lincecum, prepares a flat area of

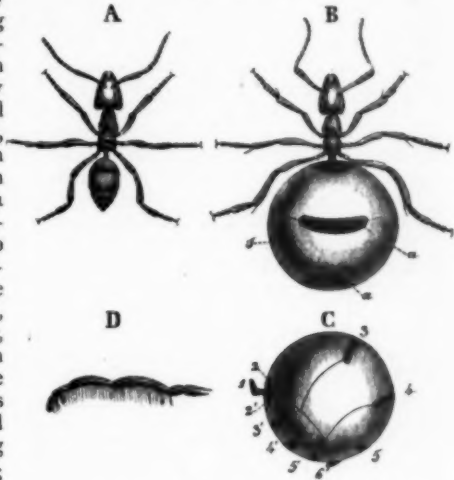


FIG. 11. HONEY ANTS.

A. Worker. B. Honey-secreting ant; *a*, abdomen swollen to form honey-sac; *a*, *a*, abdominal segments. C. Abdomen seen from side: 1, 1st segment; 2, 3, 4, 5, dorsal segments; 6, 6, 6, ventral segments; 6, anal segment. D. Maxillary palps. [After Westmahl.]

ground about its cone-shaped nest, in which grows only one kind of grain; this field it keeps carefully weeded. When the grain is ripe it is harvested, and the field cleared of stubble in readiness for next year's crop. The seed, he thinks, is sowed by the ants, but this seems to be a matter of conjecture rather than of direct observation.

There is a most singular ant—the *Myrmecocystus mexicanus*, or honey-ant—found in the southern parts of Mexico. There are among these ants three kinds of workers, two yellow workers, nurses and feeders, Fig. 11, A, and honey-makers, B, and one kind of black worker. The first kind of workers bring leaves and flower-petals to the nest upon which the second kind is fed. These secrete, from this feeding, a kind of honey which distends its abdomen to an enormous size. In the figure the ants are magnified two diameters; the distended abdomen looks like a large ripe white currant, and through this the intestine is seen to run. The nest is a crater-like elevation about an inch in diameter; a narrow canal leads down several feet into the earth; it winds about and widens here and there

into a chamber in which are stored up five or six of the honey-secreting workers. This honey supplies food for the rest of the colony—though how they manage to get it is not very clear. Upon digging down into these nests a moist spot on the clay, a collapsed ant, and a number of workers eagerly licking up the honey from the earth, tell the pathetic termination of a honey-ant's career. The strain upon the membrane has been too great and it has given way.

The black workers guard the aperture to the nest, forming a double line and marching back and forth around three sides of a square, in the midst of which it is situated.

The courage of ants has something very curiously human about it. It differs greatly in different species. Indeed, one of the most remarkable things about these minute creatures is that we are forced not only to make moral and intellectual distinctions between different varieties, but even between different individuals of the same variety. Some of them seem to be dull in accomplishing their ends, going to work with a lumbering stupidity, while others in the same colony show a quick keenness in inventing methods and resorting to devices. In the same way some seem to be more pitiful and benevolent than others. Sir John Lubbock, who denies much to ants which others accord, says: "We are forced to the conclusion that among ants, as among men, there are priests, and Levites, and good Samaritans.

The instinct of self-preservation—or rather of the conservation of species—is very strong among them. In a small and weak formicary the ants will flee before an enemy, while in a large and strong one they do not hesitate to sacrifice myriads of lives to retain their home and protect their young.

Wars among the ants have very much the same causes as among men. It is a piece of territory that is coveted, and the stronger tribe goes out in force, vanquishes and ejects the weaker; or it is the possession of its flocks and herds, which one colony wishes to wrest from another; or in the slave-making species, a colony requires a new relay of servants to relieve it of all care. In this case a number of *Formica rufa* or *Formica sanguinea* muster and advance against a nest of *Formica nigra*, after a desperate battle—for the red ants are very brave, and the black ones though cowardly, are fighting for their young—the aggressors, who are almost always victorious, bear off the pupæ of the black ants to their own nests. When they hatch out into perfect

insects the slaves take upon themselves the whole care of the colony; they tend the young, take charge of the nest, and even feed and carry about their lazy masters, who will often die of starvation rather than help themselves, even when food is close at hand. The slaves, however, have something to say in the nest. They detain their masters when they desire to go out on a slave-making expedition, till after the time that the males and females of the negro colonies shall have taken flight, so that the species shall not be exterminated. When the red ants come home without booty, the slaves treat them with contempt, and sometimes even turn them out-of-doors. They are willing to work for their masters so long as they can hold them in respect.

In these combats the ants often manifest a singular resemblance to human beings in the effect which this battle produces in the case of raw recruits. An ant which at first seemed fearful and hesitating, after a time becomes excited and shows a frenzy of courage, recklessly throwing away its life without accomplishing anything. When an ant which has reached this condition of insensate fury happens to fall in with a body of self-possessed workers, they quietly lay hold of it, several of them holding its different feet, gently touching it all the while with their antennæ till it calms down and is able to "listen to reason."

When two strong and well-matched ants oppose each other, and each feels itself well sustained by numerous comrades, they grapple furiously, curve their abdomens so as to spurt venom over each other, or to sting, as the case may be. Sometimes, however, they try first to throw each other, and reserve the use of the poison and the sting till later.

Varieties of ants which are most bitterly hostile to each other under normal conditions, will live harmoniously together if they have been reared in the same nest; and, if the mixed colony be attacked by a body of outsiders belonging to either species, the attacked ants will make common cause against the invaders.

Certain species seems always to prefer to live together. A colony examined by Forel was one of this kind, composed of an enormously developed queen of *Anergates atratulus*, with a number of males and females of the same variety. The workers, however, were all of an entirely different species—*T. Caspitum*. The abdomen of this queen, Fig. 12, was so enormously dis-

tended that the scales lay far apart upon the inflated yellowish membrane. The male *atratulus* is heavy and stupid, but able to move about; the queen, like the queen of the termites, is cared for by the workers, and even dragged from place to place. After her death the workers still cared for and caressed her body.



FIG. 12. FERTILE QUEEN OF *ANERGATES ATRATULUS*.
1, 2, 3, 4, Dorsal segments of body; m, distended membrane between.
[After Forel.]

The dwellings of these wonderful little creatures are very remarkable, and of the most various kinds. Under the confused heap of sand and bits of straw and leaves, which constitutes the external portion of an ant-hill, order reigns supreme. Innumerable chambers arranged in stories, communicate by galleries which usually radiate from a large central chamber. The outer openings are ordinarily open by day, but securely closed at night. The walls, floors, supporting pillars and arches are built of clay scraped from the bottom of the nest,

kneaded into a smooth paste, sometimes with other materials, and built up. It hardens by the alternate action of sun and moisture into a solid, durable, and waterproof cement. *Formica rufa* makes its nest by excavating; these are not nearly so neatly or delicately made as those just described of *Formica brunnea*. Other species of ants hollow out into innumerable chambers the trunks of trees, cutting away the softer portion, and leaving wooden walls of the harder, no thicker than paper. Others again *F. nigra*,—our little negro ants at home,—not only excavate chambers in the tree-trunks, but they also collect the sawdust and knead it up with spiders' webs for cement into a building-material out of which they construct whole chambers.

Possibly the tailor-birds got their notions of architecture from some varieties of the ants,—(the ants, we know, came first),—for there is an ant, *F. smaragdina*, a native of India, which makes its nest of the living leaves of certain trees. Numbers of the ants collect upon the leaves, and by their weight and muscular efforts bend them down together, so that their companions can glue them together, or fasten them by a web into the form of a nest.

These are only a few of the more curious modes of architecture among the numberless varieties of ants. Their political and social economy is far too wonderful to be described in so small a compass; but these few facts give a suggestion of the almost human intelligence of these little creatures. This fact seems to have been recognized by the Mohammedans, who have a legend to this effect: Once upon a time King Solomon issued a decree that all living creatures should appear before him, by means of a representative, bringing him tribute. Among these came the ant dragging the body of a locust, many times larger than itself. For this herculean service she alone, of all the insect tribe, was admitted to the joys of Paradise.

THE WAY.

FIRST, find thou Truth, and then,
Although she strays
From beaten paths of men
To untrod ways,
Her leading follow straight,
And bide thy fate;

And whether smiles or scorn
Thy passing greet,
Or find'st thou flower or thorn
Beneath thy feet,
Fare on! nor fear thy fate
At Heaven's gate.

FROM THE ATLANTIC TO THE ANDES.

On one of the maps of Brazil, published in connection with the display of her natural wealth at the Centennial Exhibition in Philadelphia, the lower course of the river Madeira is accompanied by a dotted line of red. It runs from a point far up toward Bolivian territory down to the junction of the Madeira with the gulf-like expanses of the Amazon. This line represents one of a series of railways projected or actually begun, which are to open up the extraordinary resources of the interior of Brazil to the commerce of the world. The surveys were made by two German engineers. In a book called, "From the Amazons and Madeira," one of these

lowing passage the impression made upon him by the river landscapes through which he passed:

"A silence as deep as the grave rests on the glassy surface of water glittering in the sun of noon; in close ranks, as far as the eye can reach, green walls of primeval forest-growth rise up on either side. Their lines are all the more even and their colors more alike, because at such enormous distances trifling differences are obliterated, and in no direction does the smallest hill break the finely serrated line of the horizon. Overhead stretches the deep, wide, dark sky, and as a foreground to the unforgettable picture are slender palms, orchid-bearing, half uprooted trunks, and heavy vines which dip their long coils into the turbid flood across the face of the crumbling river-banks. Below their



A JANGADA.

engineers, Franz Keller-Leutinger, gives accounts of the present condition of affairs on the greatest of the rivers of earth, and on one of its most important tributaries. The Madeira is blocked by a series of falls and cataracts. The government of Dom Pedro II. proposes to run a line of rail along the banks, and while developing a region incredibly rich in valuable crude articles of commerce, put certain portions of Peru and Bolivia in connection with Europe and the United States.

Franz Keller has condensed into the fol-

lowing passage the impression made upon him by the river landscapes through which he passed:

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net-work, the clay of the crumbling shore shines bright. This, for more than one hundred miles, is the character of the lower Madeira. Only at great distances huts thatched with palm-leaf peer now and then from the verdure, and still seldomer is it possible to get a sight of one of their shy, taciturn inhabitants. The only visible representatives of the animal kingdom—and these not of the kind to add life to the landscape—are shining, golden-green king-fishers gazing solemnly into the stream, quietly reflective herons and a pair of alligators lying motionless in the mouth of a side stream, whose partially emerging skulls and indented tails one easily mistakes for rotten tree-trunks. Uniform and monotonous as the smooth river the days also draw to their close; one is the image of the other.

With the first streak of gray morning, before the white mists which cover the face of the river disappear in the sunbeams, the steersmen call the rowers to the boats. Great cooking-kettles, tents, hammocks, and ox-hides are stored aboard, and each one takes his place. The narrow *pajais* are pushed with one combined effort into the water, and the heavy craft turns slowly out into the stream. For four or five hours the oars are plied in a quick, even stroke, before halt is made for breakfast at some convenient place on a dry bank.

"Of the boat crews, the most of those not occupied with kitchen duties, now take the occasion to prepare themselves fresh bark shirts. The forest resounds with dull blows of axes, and before breakfast is announced, they are seen returning with thick silk-like pieces of bark, seventy centimeters broad by four meters long. This natural cloth is beaten with hammers of heavy wood until its peculiar wave-like pattern shows itself and the stuff becomes as soft and pliable as felt, the piece at the same time attaining twice its former size. It is then washed free of sap and hung up to dry. A hole is cut in the center, the head of the Indian passed through it, and the sides sewed up as high as the waist. A girdle of cotton string or a piece of wild vine completes this original costume.

"Breakfast consists usually of turtle, unless the camp be supplied with alligator. The white flesh of the latter, which reminds one of fish, looks toothsome enough, but really rivals India rubber in toughness. But turtle takes the place of beef and mutton; at one time our camp-fire was entirely surrounded with turtles of every size, from those more than a meter long to those of a span. After breakfast, our Indians were in the habit of taking a bath in the river, and I have never seen bad results from this custom. Nor do they fear the yawning jaws and scaly tails of the alligators; it is rather the latter who are in danger from the Indians. A Canichana asks permission to go on an alligator hunt. While the camp looks on amused, he fastens a strong loop of ox-hide to a long pole, and stripping off his light bark-shirt, enters the water. The alligator has looked on in apathetic quiet and shows no life save in an occasional movement of his tail. As the crouching Indian wades toward him, he keeps his eye fixed in astonishment on the man, and does not notice the noose getting closer and closer. With a quick movement the Indian slips the thong over his head and draws it tight. Five or six comrades rush into the water, and by their combined efforts the reptile is dragged ashore, where a few scientific blows with an ax on head and tail finish him. Before the hideous game is quite dead they cut out the four musk sacks which grow two and two under the chin and at the root of the tail, in order that the flesh shall not be tainted by them. These sacks are three or four centimeters long, as thick as a finger and filled with a brown, oily liquid. They are at once hung up to dry; we were told that the ladies in Bolivia, in Santa Cruz de la Sierra, and Cochabamba delight in perfuming their hair with a mixture of rose-water and this very badly smelling, headache-producing stuff. At night-fall the Indians sit chatting and smoking about the fire after having put aside their *cascari*, or rough bark-shirt and donned their *camiseta*. This is a kind of poncho sewed up at the sides, which Indian women make on native looms with great dexterity, and whose dazzling whiteness is heightened by two stripes of brilliant red wool which run down the sides near the seam. The simple cut of these garments, and the magnificent folds of drapery into which they fall,

give to the various groups about the fire a stately character, reminding one of the antique."

Nothing can give a much better idea of the unwieldy hugeness of Brazil than to notice how the harbor of Rio de Janeiro is made the starting-point in a book treating on the Madeira River. Although both are within the empire, a glance at the map will show their total lack of geographical connection. They are as far apart as New Orleans and Montreal. On his way around the quarter of a continent which separates Rio from the mouth of the Amazon, Franz Keller notices the peculiar surf-boat used north of Pernambuco, called "*jangada*," of which the preceding sketch gives an idea. The flatness of the coast requires boats of such construction; in the surf the passenger cannot always avoid a certain amount of wetting in spite of the extreme handiness of the Indian surfmen. What gives this craft especial interest in our eyes is the fact that it is the prototype of a kind of vessel in the United States, built during the past year in even greater numbers than formerly—the craft usually called the "*catamaran*." The Brazilian "*jangada*" is a very rude example of a similar sailing-raft found in both the Polynesian islands and the waters of China. The step from a species of sailing-raft to a double-hulled racing-sloop is only natural in waters as smooth as ours; but our catamarans are, in principle, *jangadas*.

Steaming up the broad estuary of the Lower Amazon, Keller notices the motley crowd of blacks and whites, the straggling character of the settlements, the listlessness of the Brazilians. One hundred miles from the mouth of the river the ocean tides are still felt. Presently the hidden mouth of the great Madeira is passed and a dark streak in the yellow Amazon announces their approach to the Rio Negro, whose black waters take a long while to mix with the greater stream. On the Negro lies Mañaos, the capital of the province, where boatmen for the expedition up the Madeira were with great difficulty procured. It was impossible to get Brazilians to do anything, but by good luck he secured some Moxos Indians from Bolivia who were ready to return to their homes. These strangers are the only people in Mañaos who will do any work.

On entering the Madeira wide belts of floating grass called *canna-rana* or false-cane would often impede his way to a halting-place on the bank. Vegetation here has seldom the true primeval character, owing



ARARAS CANOE.

to the recent formation of the soil, but here and there a thick trunk rises above the slender white-coated cecropias. On many trees the smooth, light-green leaves of the climbing vanilla are seen. This is well known to be a kind of orchid. When first plucked it has not a trace of its perfume. The inhabitants, whose stiff, black hair and dark complexions, as well as their taciturnity, prove their strongly mixed Indian blood, support themselves by fishing and some little cocoa plantations near their huts. The one solitary settlement which is found in all the Madeira valley and which, in spite of the pompous name of villa, consists in nothing but an assemblage of a dozen filthy low huts around a half-finished chapel, is Borba. Here occurs a case not unknown in the interior. A coarse tyrannical priest abuses and profits by the ignorance of his innocent flock in the most scandalous manner. It is reckoned that only 5,000 inhabitants occupy the 2,000 square miles of the Madeira valley.

Above Borba appear the first lofty specimens of the caoutchouc tree (the *Siphonia elastica* or *Seringa*, as it is there commonly called), for this valuable tree has been almost extirpated throughout the lower Madeira and the Amazons, through cease-

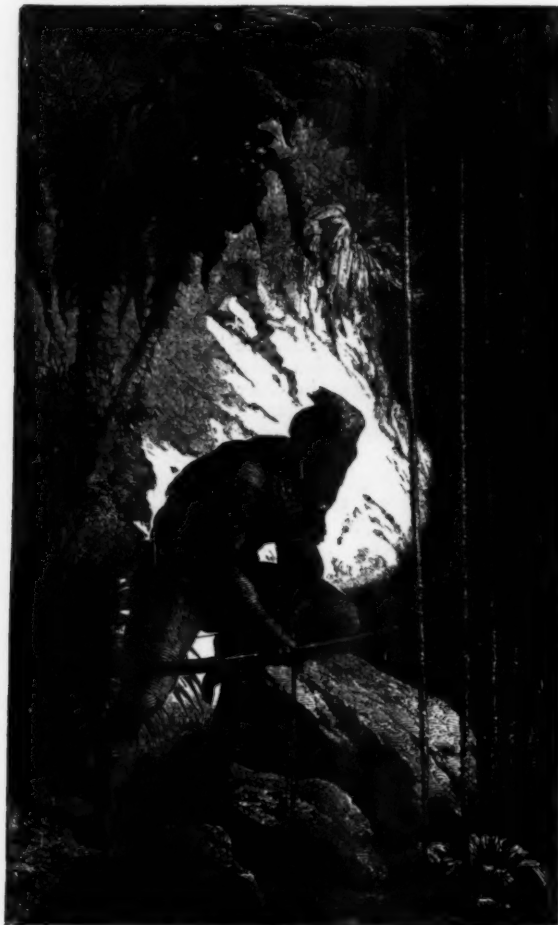
less and heedless destruction. A few huts of the caoutchouc-gatherers begin to show; low, palm-leaf roofs, under one end of which is a flooring of palm-laths one or two meters above the earth. Into this the almost amphibious inhabitants retire at the season of high waters. Although about 1860 the settlement of a Brazilian *seringueiro* was attacked by wild Parentintin Indians, and, in accordance with ancestral custom, the luckless victims were roasted on a sand-bank near by, yet these cannibals have not broken out from the black depths of their forests since that day, perhaps because they were surprised at their horrible meal and pretty badly cut up. But in that region no *seringueiro* would dare to penetrate into one of the little side valleys, even though there, as it is indeed most probable, the richest and least touched *seringa* trees were to be found. Sooner or later he would have to expect a murderous attack at the first dawning, when his few fire-arms would be of little value against the long reed arrows and heavy spears. Another danger for settlers is malaria, which is not, however, spread generally throughout these broad, flat valleys, as it is generally supposed, but on the contrary is distributed locally. For instance, malaria is entirely un-

known in Mañaos, while on the upper Negro and Branco it is common. On the Madeira, with the arrival of the first floods from the great tributary, Beni, a fever breath runs through pretty much the whole valley; but on the lower Madeira only the places Santo Antonio, Aripuana and Jammay are really dangerous. Yet in the limits of the cataracts, where one might expect that the heavy fall and stony nature of the ground would breed less malignant fevers, there they are most dangerous. Bolivian merchants, surprised by the floods, have run the risk of losing everything through the sudden illness of all their crews, and in some cases have with difficulty gained the smooth lower river where even sick men can float down the stream.

But in the dry season such a settlement of a *seringueiro* is beautiful as a scene in paradise, particularly so when majestic palms and bertholletias with lofty trunks and mighty tops rise above the lightly built huts, the hammocks stretched between two trees, and the provisionally erected mosquito curtain. Since, however, the *Siphonia elastica* only thrives when its trunk has been submerged each year at least one and a half meters, and since in consequence its locality is that of the latest alluvium,—scarcely above low-water mark,—the palm-leaf floor of the hut, inhabited by the gatherer of India rubber, rests on posts two meters high. In the dry season, noisy chickens strut about underneath. Here the canoes are moored in the wet season to protect them against driving logs. At such times the life of the *seringueiro* is by no means to be envied; he can do no work, but must allow himself to be bitten by mosquitoes, and at the most can count the days between his fever fits.

Narrow paths lead from the hut through the thick underbrush to the solitary trunks of the India rubber trees; and as soon as the dry season allows, the woodman goes into the *seringal* with a hatchet in order to cut small holes in the bark, or rather in the wood of the caoutchouc tree, from which a milky white sap begins to flow through an earthenware spout fastened to the wound. Below is a piece of bamboo which is cut into the shape of a bucket. In this way he goes from tree to tree until, upon his return, in order to carry the material more conveniently, he begins to empty the bamboo buckets into a large calabash. The contents of this are poured into one of those great turtle shells which on the Amazons are used for every

kind of purpose. He at once sets to work on the smoking process, since, if left to stand long, the gummy particles separate, and the quality of the India rubber is hurt. This consists in subjecting the sap, when spread out thin, to the smoke from nuts of the Urucury or Uauassa palm, which, strange to say, is the only thing that will turn it solid at once. An earthenware "bowl without bottom," whose neck has been drawn together like that of a bottle, forms a kind of chimney when placed over a heap of dry red-hot nuts so that the white smoke escapes from the top in thick clouds. The workman pours a small quantity of the white rich milk-like liquid over a kind of light wooden shovel which he turns with quickness, in order to separate the sap as much as possible. Then he passes it quickly through the dense smoke above the little chimney, turns it about several times and at once perceives the milk take on a grayish yellow color and turn solid. In this way he lays on skin after skin until the India rubber on each side is two or three centimeters thick and he considers the *plancha* done. It is then cut upon one side, peeled off the shovel and hung up to dry, since much water has got in between the layers, which should dry out if possible. The color of the *plancha*, which is at first a bright silver gray, becomes more and more yellow and at last turns into the brown of caoutchouc as it is known in commerce. A good workman can finish in this way five or six pounds an hour. The thicker, the more even, and the freer from bubbles the whole mass is, so much the better is its quality and higher the price. The finest kinds bring almost double what the poorest do. This last, the so called *semamby* or *Cabeça de negro* (negro-head),—consists of the drops picked up at the foot of the trees and the remnants of sap scraped from bowls and pots. The caoutchouc of India is said to be about equal to this *semamby* and like it to be mixed with sand and pieces of bark. In order to be sure of the quality each *plancha* is again cut in two at Para; in this way all air bubbles appear and any adulteration with the sap of the mangaba can be detected. The latter is that fine plant with thick shiny leaves which is now so common in Europe under the name of India rubber tree. A caoutchouc can be made of the nuts of the mangaba, but it has so slight an elasticity and toughness that so far it has had no value in commerce. For some purposes, such as the preparation



A CARIPUNA, HUNTING.

of hardened India rubber, the sap of the mangaba might well be used; and as it could be furnished much cheaper than the genuine *seringa*, Keller thinks it might repay large European or North American commercial houses to send agents to the Amazons with that view.

Certainly the export of India rubber has seen an enormous increase during the last twenty years. Formerly sugar was the chief article of commerce for ships running to Brazilian ports; then came the coffee plant from Africa and revolutionized the agriculture of the empire. It still holds its own at the head of all other exports. Hides had a similar history to coffee; at

first an article of little importance in the foreign trade, it is now assuming large proportions. Cotton received a fine stimulus during the late war in the United States. India rubber has also increased steadily in value and amount for export, owing to the steadily augmenting use for it in a thousand different ways both in Europe and the United States. Brazil's report at the Centennial Exhibition, states that in the thirty-five years previous to 1874 the increase in the annual export of India rubber was over five million kilograms. The relative increase in the value of India rubber exported was greater than that of any other article. The wild production which Mr. Keller-Leutzing describes is being supplemented by systematic cultivation. When this becomes general the price of India rubber must fall, but it will always be a very profitable crop. It is calculated that India rubber and cocoa plantations are the most remunerative to the farmer; a tender of a cocoa plantation, single-handed, is expected to make \$500 from each crop.

Herr Keller found an interesting spot in the long, wearisome stretch of the lower valley of the Madeira in "Baia de Tamandua,"

a long island of sand, close to the right bank and below Santo Antonio, the first rapids. Here turtles come during the month of September in incredible numbers to lay their eggs. The inhabitants of the bank take this occasion to collect millions of eggs and, having mashed them up, to prepare the well-known turtle-butter (*Manteiga de tartaruga*). This delicacy, so far from being delicious, has an insupportable rank smell and a taste just as bad. In this month the turtles come ashore in such astonishing numbers that a stranger feels disgust and horror at the sight of their mail-clad columns. The reptiles, usually so shy that they dive at the slightest noise,

are now blind to every danger, and fishermen and seringueiros turn them on their backs by hundreds, preparatory to filling their boats. A continuous war such as this upon the most prolific animal can have only one result. While the rich flora of the Madeira furnishes a number of vegetable oils, the inhabitants destroy their own means of support by using the eggs of turtles for butter. Turtles take the place of beef. It is only of recent years that an ox-hide has been a well-known article on the Madeira,

they were the waves of a petrified sea. Here all the cargo has to be laboriously transferred to the upper stream while the boats are tracked up the falls.

Passing the rapids of Morrinhos you come at length to one bearing the ominous name of "Caldeirão do Inferno," (Hell's Kettle). Here a horde of Caripuna Indians have settled down, whose reputation is not of the best, they having had several bloody fights with white men. "Either because of our numbers," says Keller, "or in conse-



MASS AT THE CHURCH OF MISSION INDIANS.

and the supply of cattle can never be sufficient. Meanwhile the turtle is steadily falling off in numbers.

Dashing and foaming in its headlong course, the yellow waters of the Madeira press through the blackish-gray rocks of Santo Antonio. It forms a great relief to eyes wearied by the monotonous character of the lower stream. Around about are mighty blocks of metamorphic rock of the nature of gneiss, whose partially upright strata hem in banks and islands with points and pinnacles, as if

quence of small gifts presented to them, we were received in a very friendly way. It was a curious psychologic phenomenon to remark the mixture of fear and loathing with which our Moxos Indians regarded these entirely wild, naked relations. One was reminded of the relation to each other of wolf and shepherd's dog."

Very different from the Parentintin and Aráras Indians—the latter have retired entirely from the Amazons into the woods on the right bank of the Madeira—are these

Caripunas. Although hardly dwelling in the odor of sanctity, they do not break suddenly out of the darkness of the woods like the remnants of the once powerful Aráras and disappear with the smoke of burning settlements and roasting human flesh. A traveler so seldom sees these wildest tribes, that were it not for an occasional bark canoe of the Aráras, which the floods bring down from a side stream, and the entire absence of settlements throughout the haunts of the Parentintins, he would be inclined to consider the stories of India rubber gatherers fables. One morning, as they were passing the smooth stretch below the Caldeirão do Inferno, they saw three bark canoes almost hidden under the vegetation of the bank. One shot out toward them; it contained two Indians and a stout squaw, all entirely naked with the exception of the latter, who wore a small apron. Their visit of inspection made, the travelers followed to the shore. In general they were well built, powerful figures of middle size, to whom long black hair,—in one case wrapped together in a great cue,—ears pierced to hold the crooked teeth of the water-pig, and bunches of red toucan feathers, which both men and women carried thrust through a hole in the cartilage of the nostril, gave an exceedingly strange and wild appearance:

“*No Christians!*” grumbled Remigio, our bigoted captain, while the Moxos Indians, in their decent draperies, looked curiously and shyly out from under their broad straw-hats at their savage brothers. When we reached the other bank we found, the whole tribe, some sixty warriors and as many women and children, waiting for us under the shady roof of orchid-covered trees of giant size. Fan-shaped *strelitzias* and magnificent palms spread their fronds between them. In front stood the chief, a powerful man of short stature some fifty years old. He held a long bow and two or three arrows in his hand, and his brown and by no means handsome face, hung about with long black hair, was rendered absolutely hideous by being painted with dark blue about his broad mouth. Beside the inevitable breast-covering of glass beads, he carried the same ornaments in ears and nose that the others bore, and had in addition a beautiful diadem of yellowish-red toucan feathers.

“About a thousand paces from the bank we reached a small clearing, in the midst of which were three very large huts, closed on the sides, and one small open one. The latter was the assembly-place for the men.

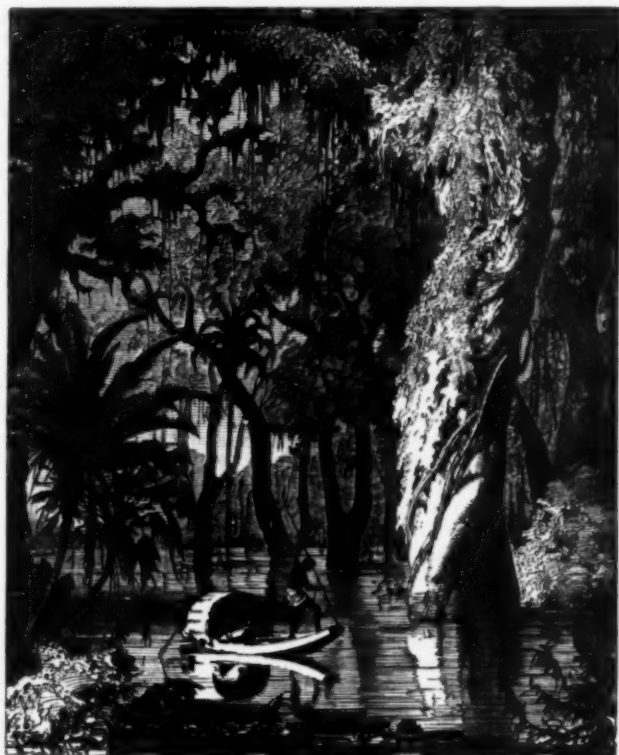
Hammocks none too clean were swinging ready for us. On the posts about hung bows and arrows, long, thin drums for sacred dances, and pretty baskets made of palm-leaves to hold feather ornaments. A further singular purpose to which the assembly-place was put, revealed itself in a few depressions on the ground, in the center of which were smooth stone plates, evidently covers to subterranean openings. These were two graves of warriors, who are stored away in great urns called *izaçabas*. Of course we could not get a sight of their style of interment, although we could imagine what they looked like from the burial-places found in extensive tracts further toward the coast. It is dangerous to tread too closely on such matters with a people who regard all things connected with their dead with the greatest awe. I asked a young Indian to exchange for a pair of scissors a narrow, thin board about fifty centimeters long, which made a humming noise when swung by a string passed through its center. He turned at once to an old Indian and repeated my demand with agitation in his voice. With a very solemn face, but at the same time with a kind of quiet courtesy, the elder gave me to understand that this instrument was used at their funeral ceremonies, and therefore could not be exchanged in the way of trade.

“The Brazilian government is alive to the advantage of civilizing the Indians, and has made some efforts in that direction. A school at Mañaos has been opened for them, another at Santa Isabel. There are various establishments conducted by Franciscans, and religious men of other orders endeavor to teach them Portuguese and the rudiments of education. It is hoped that the pupils will become missionaries to their savage brethren. The Indians of Brazil are estimated at one million. Government reports claim that they are sober and industrious, and make good artisans.”

We continue Mr. Keller's description, without quotation marks: Having bought a quantity of mandioc roots and maize, we returned to our boats the best of friends. It was, therefore, a disagreeable surprise afterward to hear that a few months later the same tribe had fallen upon the boats of a Bolivian merchant, and had killed him and some of his crew. Whether there was a provocation cannot be ascertained.

While crossing the rapids of the “Caldeirão,” we had discovered by the light of a lantern, at the same time that we were taking

astronomical data, some shallow drawings, partly semicircular, partly in form of volutes, on the dark-brown surface of some almost perpendicular rocks. At the rapids of Periquitos further up, while the crew was anxiously at work dragging the boats over the lowest swells, I climbed the rocks of the right bank and found again several of the volutes and concentric circles we had discovered at Caldeirão do Inferno. Like those, they were shallow cuttings in the surface of the black, hard, gneiss-like stone. But the best found was a complete inscription, the even parallel strokes of which could in no case be considered the handiwork of some lazy Indian. The surface of the letters was as much weather-beaten as those further down, so that in some places they are pretty much wiped out, and only appear clearly under a favorable light. A shining, dark-brown crust which forms when the water has covered the rocks, even if it be only for a short time, is found on the signs as well as the surface of the rock between them. Many centuries must have passed over them since the stone chisel laboriously cut the rind. Since the lower line of the signs is pretty horizontal, and since, like those at the other cataracts, they are little raised above the low-water mark of the river, we may well assume that the present position of the blocks is the original. Could these, perhaps, represent great conquering marches of the Incas, or are they still older? They cannot well be traced to the ancestors of the present Caripuna Indians, if, as we may assume, they stood on as low a footing. A rude hunter-people like them would hardly take the trouble to work at a hard rock surface for months with flint chisels. If such a thought had occurred to them they would have selected some close, child-like resem-



A TAPUYO'S EDUCATION.

blance in animals; alligators, turtles and fish, or the sun and moon, as in the pictures on crags in the valley of the Orinoco described by Humboldt.

Above the cataract of Madeira, and just below the mouth of the Beni, were enormous masses of drift-wood which had come down this latter tributary during floods. Undoubtedly it was such heaps of giant trees lying by hundreds in the neighborhood which made the Portuguese call these falls "Madeira," that is "Wood," just as it was the great quantity of drift-wood at the mouth of the larger stream which earned for it the name of Madeira in place of the old Indian name "Caiary."

The Beni has a breadth of 1,000 meters, and an average depth of fifteen. Hence it is the chief branch of the Madeira, and that name should attach only to the stream below the junction of the Beni with it. Unfortunately, our instructions as well as the advanced season did not permit us to ascend this interesting and utterly unknown stream,

which, to judge from the size of the cedars and calisaya trees which come down into the Madeira, must flow through a rich country. At the mouth of the Beni, and on the western side of the stream begins the territory of Bolivia. In passing the next cataracts above the Beni, we found still further signs engraved on the rocks. After these were passed each man breathed lighter, and the end of the journey, the missions on the Mamoré, a smaller branch of the stream, seemed pretty near, although there was still fifty miles to go. These districts are not regularly flooded every year. It is not overflow, but fever, difficulty of communication with the Amazons and the neighborhood of wild, blood-thirsty Indians, so far little known, which cause them to be uninhabited. The stream is like a lake; not one foreign sound breaks the majestic quiet of nature; neither the solitary hut of a *seringueiro* nor the smooth palm-roof of an Indian malocca is to be seen. Near the mouth of the Guaporé, rules to guard against ambuscade of the Indians were made doubly strict; weapons were held continually in readiness, and no one was allowed to stray far from camp. These bold robbers during their raids come as far as the forts of Principe da Beira on the Guaporé, where they have murdered several soldiers, under the cannon, so to speak, of the half-ruined citadel. On the Mamoré they range to the former mission of Exaltacion. Inhabitants of this mission who had gone down the stream at the time of ripe cocoas in order to gather these fruits, were suddenly saluted with a cloud of arrows as they passed by a high bank, and many were wounded and killed. The impudence of these robbers is so great, that a few years ago they seized a boatman belonging to the flotilla of a Bolivian. He had sprung on a sand-bank to look for gulls'-eggs, when they pounced upon and carried him off before a shot could be sent after them. The merchant and his men pursued them in vain, although they could hear his despairing cries for help in the thick woods. His fate was either to be eaten or to exist as the lowest kind of slave.

The branches, Mamoré and Guaporé, have low banks which are not overflowed. The vegetation, which had lost much of its luxuriance since we left the region of the cataracts and neared the "campos" of Bolivia, became even meager and steppe-like. Instead of the forest giants of the

lower stream, bushes appeared, and only now and then a couple of palms would give the landscape, one cannot say richness, but at least grace. In some places on the left bank, where a porous sandstone shows out, the vegetation was really that of the prairies,—high, tough grass and low brambles. At last we reached the "harbor" of Exaltacion, our goal. At the foot of a steep bend of the river lay a few small canoes, as well as two large boats of the same heavy build as our own, while above on the bank were a pair of wretched straw huts surrounded by some dwindled bananas and the peculiarly crippled and wind-wrenched vegetation of the "Campos." This bore the name of "Porto de Exaltacion de la Santa Cruz!" A few Indians bathing, and two brown women who were filling their great water-pitchers, enlivened somewhat the melancholy picture. While we marched across the dry campos, some two kilometers toward the "pueblo" we met, within sight of the roofs which peep between some thick-leaved tamarind trees, several Indian women. They greeted us in their own tongue in their peculiar, quiet manner. The literal translation of the greeting is: "Indeed! you are come?" and the correct answer, according to Indian usage, is a long-drawn, somewhat chanted: "Hm! now!"

Without communication with the exterior world, separated from the outer movement on the one side by the sky-touching snowy Cordillera de los Andes, on the other by trackless, primeval forests, and rivers full of rapids and cataracts, some 30,000 genuine, unmixed Indians, mostly of magnificent physical growth, exist in a state of neglect and oppression, than which nothing more saddening can be imagined. They live in fifteen great communities, formerly laid out with regularity by the Jesuits on the prairies of the easterly provinces of Bolivia, between the rivers Beni, Mamoré, Itowama and Guaporé. When their ancestors listened to the crafty words of the Jesuits, and took up settled abodes which hardly agreed with their usual necessities, and when gradually they were brought to renounce most of their national peculiarities, they bent before a far superior mental power which had found out just that form of government which, along with a strictly patriarchal system, agreed best with the egoistic purposes of the rulers on the one side, and the childish nature of the Indians on the other.

The success of the missions is to be laid to the inflexible rules of the order of Jesuits, the self-sacrifice of its members, the tact of those in contact with the lower race, and lastly, the gentleness and obedience in the character of the Guarany and Moxos Indians. In this latter relation a remark of a chronicler in regard to the manner used by the Jesuits in dealing with Indians is worth giving: "If with other heathen faith finds an entrance through the ears, as St. Paul has said, it enters into the Indians of Paraguay through the mouth."

But to return to the "Pueblo" of Exaltacion. Its first impression is sad enough. The broad streets, marked out by half-rotten posts, which show its former size, and lead to the plaza in the center of

a stronger material. But Spanish carelessness has not taken the trouble to make the most necessary repairs. And yet, notwithstanding, their appearance is such that one is ready to expect at any moment to see one of the *padres* step out from the dark background of the ancient columns. It is chiefly the absence of all trees which gives the whole a vacant, almost cloister-like, appearance. Moreover, the many colossal crosses, bleached by the years, of which the largest rises in the center of the plaza, and the silent forms of Indians in their white, heavy-folded camisetas flitting mysteriously through the dark colonnades only make this impression more deep. After we had admired the grotesque ornamentation, the brilliantly painted pilasters and statues of



THE PIRA-RUCU.

the regularly laid-out village, are desolate and grass-grown. Only a few of the low Indian dwellings, painted white and running close together, show anything besides the door but a small barred window. But all, both those in the side streets as well as those on the plaza, have a deep roof projecting in front and supported by wooden posts. One side of the plaza, some hundred meters long, is occupied by the isolated "Campanile" and the former college of the fathers, built of adobe. At this day, a hundred years after that other heavy storm which carried off from the Jesuits the missions in Paraguay, Brazil, Bolivia, etc., and with them all their rich revenues, these buildings might just as well be standing in as good repair as if they had been built of

the vestibule, we stepped from the glaring light of the sinking tropical sun into the mysterious gloom of the interior.

From the music-loft over against the altar I could easily watch the dark lower space fill slowly. Silently and gravely men and women entered. The former were without exception in the classic camiseta, the latter now and then in broad figured skirts of European make, their long black hair loose about their shoulders. Even the children, most of them charming little persons, marched solemnly behind their parents. In fine, it was evident that church and service were as interesting to them as when the first missionaries were there. In the same loft, where stood two little organs in richly ornamented cases with painted doors, the mu-

sicians had taken their places. The leader was a venerable Indian with a pair of spectacles held in place by a string weighted with leaden bullets which ran across his forehead. Close to the balustrade stood the singers provided with a red flag wherewith to beat the time for the benefit of the chorus of the congregation below, while the violins, flutes and wonderful trumpets posted themselves behind. The priest appeared at the altar, and the full tones of good old church music sounded through the large building. It was the festival of some saint, and the altar glittered with rich silver ornaments, while long palm branches, nodding from the pillars of the nave and the balustrade of the organ-loft, gave just that touch of the tropics which was needed to make the picture fairy-like.

Great church festivals with processions were chief factors in the successful reduction of these Indians, and are still, not only in Bolivia, but in all South America, events which electrify the whole population. But in the pueblos, processions have a peculiar character on account of the dominant, purely Indian element, which, in many ways, by greater earnestness and a certain wildness, is superior to the childish monkey-like proceedings of the negro, mulatto, and mestiz populations of the cities. At a festival in Exaltacion de la Cruz, a dozen *macheteiros*, or sword-dancers, under the leadership of their chief, who brandished a silver cross, marched from cross to cross, strewing incense and chanting, while the whole tribe followed their steps. They wore a fantastic head-dress made of the long tail-feathers of the aráras, and the golden-red down from the breasts of toucans, dazzling white camisetas, and in their hands, clapping deer-hoofs, together with a broad sword generally of wood. At each of the many crosses which adorn this mission, as well as before the altar, they performed a kind of allegorical war-dance, which plainly symbolized the subjection of the Indians and their entrance into Christianity. After the *macheteiro* had finished his sword-dance before the altar, and, hot and sweaty, had approached it with many bendings of the knee, he laid both weapon and head-dress at the foot of the crucifix.

On the Amazon and Madeira, hunting is not done for sport, but to obtain a strong kind of food. The noblest and most largely hunted beast is the tapir (*anta*), the representative of the pachyderms in the New World, which is only found in a few localities in India. This diminutive elephant,

in spite of its want of gregariousness, infests in great numbers the densely wooded banks of all the tributaries of the Amazons and La Plata, but not in the swampy bottoms nor on the dry plateaus, but in the valleys clothed with luxuriant vegetation. Behind impenetrable thickets or beneath the feathery roof of slender tree-ferns the tapir loves to keep its lair, whether it be on the banks of roaring mountain streams or at the foaming cataracts of giant rivers like the Madeira and Paraná. It is a timid animal and easily killed when once it has taken to the water. Only the mother is dangerous. The dogs that dare approach are at once destroyed, and when shot she falls at her post over her frightened young. The young are easily tamed and become household pets. So it is with all the large animals of South America. The wild hog, deer, guaty, pacca, even the leopard, are easily tamed, to say nothing of the monkeys, parrots and fowls. Even the giboia or American python snake is kept in some huts as *Serimbabo* or house pet, to destroy rats, mice and such vermin.

The extraordinary quantity of fish in these great rivers explains the preference to the neglect of household animals, which Indians and Mestizes show for sport of that kind as well as for hunting. As a tiny child, the young Tapuyo, as the present colored inhabitants of the Amazons are generally called, accompanies his father in a light craft into the inundated woods, between the tops of palms and the mighty forest trunks festooned with creepers. There, harpoon in hand, they wait for the huge *pira-rucu*. The *lamantin* or *manatee*, which, in spite of its Portuguese name of *peixe-boi*, ox-fish, is no fish at all, but a cousin of the whale, is most found among the swimming reed-grass and wild-rice which form its chief nourishment. The *pira-rucu*, by no means delicious eating when fresh, furnishes a disgusting article of food, far inferior to cod-fish, when it has been salted and dried. Thousands of hundred weight are shipped on the Amazons and consumed by Indians, Mestizes, and white men from Pará to the Peruvian boundary. This mighty one of the stream, which not seldom attains the length of four meters, and is covered with thick broad scales, the edge of each of which has a well-defined scarlet line, is cut down the length of the back, the backbone removed, and its flesh hammered out into a thin sheet, salted and dried in the sun. But since it is very quick to absorb moist-

ure, and the atmosphere of the lower Amazon is very damp; moreover, since the stone sidewalks in the small towns furnish the most convenient spot for redrying these blankets of fish, the inhabitants and passers-by have the pleasure of smelling pira-rucu even oftener than eating it.

The most faithful attendant of a traveler on the Amazon from the mouth to the cataracts of its tributaries is no genuine fish, but the porpoise or dolphin. They often strike the surface with their tails as they come up for their regular breath of air and throw themselves snorting and grunting above water.

Of the inhabitants of the waters a really dangerous one, and an enemy more feared than the alligator, is the rather small fish called the *piranha*. Its teeth are in double row, sharp and protruding, triangular in shape. They hunt in schools of hundreds, and as soon as the water is reddened with blood fling themselves upon the victim and tear his flesh off piecemeal. Many a bold swimmer has been actually devoured in this way by their horrible little snapping jaws.

Our return was quicker than our upward journey, and leaving Exaltacion the 19th of October, we reached St. Antonio the 18th of November. The first storms were beginning when we left, and we made haste to escape the fevers which the floods produce in the region of the cataracts. Yet none of us escaped without more or less severe attacks of fever. The continual taking of quinine in strong doses gave us some relief, but could have been of little permanent use, because afterward as well as before, we were subject to the same deleterious influences.

Yet in general the climate of Brazil may be termed a healthy one, with the exception of some river valleys. The temperature is, generally speaking, very equable over the whole extent of the empire. The yellow fever is dangerous for new arrivals in the large sea-coast towns, but not elsewhere. The cholera is, however, a great plague, especially among the blacks. Measles and

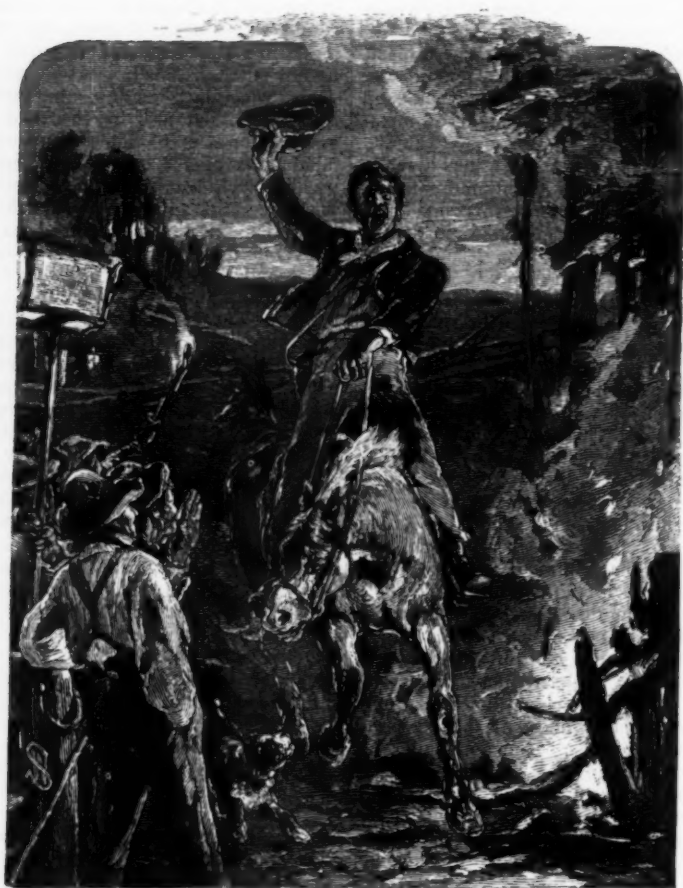
scarlet fever riot among the Indians, and whole tribes succumb to them. Although the white is the ruling race, it is really only a small fraction of the population. Especially in the interior only a small number of families can boast of pure descent from Portuguese, who still form the largest portion of the foreign element and control the petty commerce. At first glance a Brazilian can be distinguished from his ancestors. He is usually darker, small, graceful and easy, while, generally speaking, the Portuguese is stronger, but also heavier, and distinguished for a comfortable stoutness. The inhabitants of the southern provinces are usually much handsomer, more industrious and energetic, and nearer to a European type than those of the northern states, in whom the Indian element is more apparent. In regard to color, prejudice is by no means so strong, as for example, in North America, but it is a great insult to question the pure descent of a Brazilian of good standing. Indeed, I know of dark-hued Brazilians in high official positions in Rio de Janeiro, who would give half their fortune and power to own the skin of the Portuguese water-carrier who has just labored up the steps of their palace in order to earn a few pence. Race distinctions are after all stronger than any other grades or denominations. Hereditary nobility no longer exists in Brazil. The constitution has been modeled in the direction of that of the United States, but there still exists a personal nobility which can be conferred by patent of the emperor.

Keller has little to say about slavery; it still exists, but legislation has seen to its gradual extinction. No one can be born into slavery now, and the government makes a boast of liberality, the freedom of the press, and conscience, and the steadily improving educational facilities which, under Dom Pedro's guidance, go hand in hand with advances in material wealth.



ROXY.*

BY EDWARD EGGLESTON.



"MURRAY FOR YORK AND POSEY!"

CHAPTER IV.

ELECTIONEERING.

"MARK," said the major, in a tone of paternal authority, and after long and deliberate chewing of his quid of tobacco, "ef it hadn't been for me, explaining and mollifying things and the like, you would

have set all Rocky Fork ag'in' you. Why, Jim McGowan was bilin' mad. You mus'n't look at purty faces and the like too long, ef you mean to be a member this winter. A man like you owes somethin' to himself and—and his country and the like, now, you know. Hey?"

Mark was in no mood now to receive this

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remonstrance. In the cool gray dawning of the morning, when the excitement of the night had passed off, there came to him a sense of having played the fool. A man never bears to be told that he has made a fool of himself, when he knows it beforehand.

"Major Lathers," retorted Mark, stiffly, "I didn't bring you along for a guardian. I'll have you know that I can take care of myself in this canvass. If I choose to enjoy myself for a few hours dancing with a pretty girl, what harm is it?"

"If you was to be beat, and the like, now, you know, by about six votes, you'd find out that folks as dances has to pay the blackest kind of nigger-fiddlers sometimes with compound interest and damages and costs, and sich like, all added in and multiplied. Don't let's you and me git into no squabble, nur nothin', like Cain and Abel did in Paradise. I don't want to be no garden, nur the like, to no such rapid-goin' youth as you. Risk's too big, you know. You've got book-learnin', and you can speechify, now, you know, but fer whackin' about the bushes and the likes, ole Tom Lathers is hard to git ahead of. You shoot sharp at long range and off-hand. I clap my hands every time you shoot. But I pick up the votes and salt 'em down fer winter use and the like. Now, I think we better keep pards till election's over, anyhow. Ef you want to quarrel afterward, w'y go in, that's all, and I'm on hand. I done what I could to keep Rocky Fork from gitin' on a freshet last night, and if you go back on me now, it'll be ungrateful, and we'll both be beat all to thunder and the like."

With these words the breach was healed for the time, but Mark was sulky all that day.

A few days after the dance at Rocky Fork, Mark had an opportunity to retrieve his fortunes by making one of his taking speeches at the Republican meeting-house only a few miles away from Kirtley's, but in a neighborhood much more friendly to the Whig candidate. This Republican meeting-house had been built as a union church, in which all denominations were to worship by turns. But, in 1840, sectarian spirit ran too high for the lion and the lamb to lie down together. The Episcopal Methodists had quarreled with the Radicals, or Methodist Protestants, about the use of the church on the second and fourth Sundays in the month, while the Hardshells, or Anti-means Baptists had attempted to drive the Regular

Baptists out of the morning hour, and the Two-seed Baptists and the Free-wills had complicated the matter, and the New Lights and the Adventists and the Disciples were bound also to assist in the fight. The result was that the benches had been carried off first by one party, then by another, and there had been locks and padlocks innumerable broken from the door. So that the visionary experiment of a Republican meeting-house in a country where popular education was in its infancy and sectarian strife at its worst, had only resulted in teaching these militant Christians the arts of burglary and sacrilege. The Whigs and Democrats, however, managed to use the much-damaged church for political meetings without coming to blows over it. On this occasion Bonamy was to have a discussion with his opponent, the Democratic candidate for representative, one Henry Hardin. But, as Hardin had no gift for speech-making, while Mark had, there could be no doubt of the issue.

The Democrats for the most part came out in surly anticipation of defeat, but old Enoch Jackson, the wire-puller for the party in that part of the country, shook his head significantly and gave the "boys" to understand that "he knew somethin' or 'nother that would make the Whigs squirm." And it was passed round from one to another that "old Nuck had somethin' in his head." So the Democrats marched into the meeting with an unterrified air.

Mark Bonamy felt very sure of success. He was to make the last speech and Major Lathers assured his Whig friends that when Hardin was through with his speech, young Bonamy would chaw him all up and the like, now, you know. Hardin had, however, been carefully "coached" for the occasion and he made a fair argument of the heavier sort, against the National Bank, against internal improvements by the general government, and especially in favor of free trade, spicing his remarks, which were delivered in a loud, monotonous tone, with many appeals to the popular prejudice against the Federalists, of whom, it was claimed, the Whigs were lineal descendants. At proper intervals in the speech, which was of uniform heaviness, Enoch Jackson would bring his heavy, well-oiled boot down upon the floor, whereupon his trained partisans followed his lead with energetic applause, which gave the exhausted orator time to breathe and to take a sip of water, while it also served to give an appearance of vivacity to the

speech. But Bonamy felt himself able to brush away the effect of Hardin's speech with a dozen telling hits delivered in his magnetic manner.

As soon, therefore, as Hardin had ceased, Mark rose and began in his most conciliatory and vote-winning fashion:

"Fellow-citizens of Brown Township: I want to say in the beginning that it is with no animosity to Democrats that I rise to address you. I hurried for the hero of New Orleans when I was a boy. Here are the men who voted for my father. I have no unfriendly feeling toward them, I assure you."

"You're a turn-coat," cried one of the young men. But this was what Bonamy wanted. Contradiction was his foil.

"I am a turn-coat, am I?" he cried in a burst of indignation. "I will show you whether I am a turn-coat or not. Where did I learn the principle of protection? From General Jackson himself, as I will proceed to show."

But at this point everybody's attention was drawn to a storm of oaths coming from two voices without the door.

"You lie, you——scoundrel. I'll lick you within an inch of your life if you say another word."

The voice was Jim McGowan's, and Major Lathers, knowing at once that mischief was intended, closed the door just as the other voice cried:

"You dassent tech me with your little finger, you cussed coward you."

"Fellow-citizens," resumed Mark, "I have been called a turn-coat, now I——"

"Le' go of me," Jim McGowan was heard to say. "I kin kill Sam Peters the best day he ever saw. Le' go of me, I say."

"Le' go of him," cried Peters. "I'll spile his pro-file fer him."

Within there was confusion. Only Enoch Jackson appeared entirely quiet and really anxious to hear what Bonamy had to say. The rest would rather have seen a fight than to have heard the best speaker in the world.

"I have been called a turn-coat," resumed Mark, "and I want to——"

But here the cries out-of-doors indicated that the two had broken loose from their friends and were about to have a "stand-up fight." This was too much for the audience. It was of no use for Mark to say "Fellow-citizens." The fellow-citizens were already forming a ring around Sam

Peters and Jim McGowan, who, on their parts, had torn off their shirts and stood stripped for the fight, which for some reason they delayed, in spite of their vehement protestations of eagerness for it. Bonamy was left with no auditors but Major Lathers, Enoch Jackson, who looked at him innocently, and his opponent, who sat decorously waiting for him to proceed.

When Mark desisted from speaking, Enoch Jackson's triumph was complete, but he set out to walk home with the gravity of a statesman. Mark, however, did not give up the battle easily. He called a Whig justice into the church, swore out a writ against Peters and McGowan, and helped arrest them with his own hands. This prompt action saved him from the ignominy of entire defeat, but it was too late to save the day. By the time the participants in this sham battle had paid their fines, the day had so far waned that it was impossible to rally the audience to listen to any further speaking.

Lathers did not say anything to Mark as they rode away. Bonamy was in continual expectation of a reprimand for his folly in running after "pury girls and the like." But Lathers knew that Mark needed no further rebuke.

From that time until the day of election Bonamy gave his whole heart to the canvass, and his taking speeches and insinuating manners enabled him in some degree to retrieve the error he had committed. It was only on the very last day of that exciting campaign that he ventured to turn aside on his way home and ask for a drink of water at old Gid Kirtley's fence, loitering half an hour without dismounting, while Nancy Kirtley, on the other side of the fence, made Mark forget her foolish talk by shifting from one attitude to another so as to display face and figure to the best advantage. Only the necessity for reaching Luzerne that evening in time for "the grand rally" with which the canvass closed, could have persuaded the dazzled young man to cut short the interview. This he found hard of accomplishment, the bewitching siren using all her endeavor to detain him. It was only by sacrificing a watch-seal of no great value upon which he saw her covetous eyes fastened, that he succeeded in disentangling himself. He swore at himself half the way to Luzerne for his "devilish imprudence" in giving her the trinket. But a hopeful temperament brought him peace after a

while, and he made a most effective appeal to the Whigs at Luzerne to "rally" round the hero of Tippecanoe.

CHAPTER V.

ELECTION DAY.

You have often wondered, no doubt, why men should make a business of politics. There is, of course, the love of publicity and power; but, with the smaller politicians, this hardly accounts for the eagerness with which they give themselves to a business so full of toil, rudeness, and anxiety. I doubt not the love of combat and the love of hazard lie at the root of this fascination. This playing the desperate stake of a man's destiny against another man's equal risk, must be very exciting to him who has the impulse and the courage of a gamester.

The grand rally of each party had been held in the village of Luzerne, and other rallies not so grand had been rallied at all the other places in the county. It was at last the morning of the election day. Politicians awoke from troubled slumbers with a start. I fancy election day must be hard on the candidate: there is so little for him to do. The whippers-in are busy enough, each at his place, but the candidate can only wait till night-fall. And all the while he is conscious that men are observing him, ready to note the slightest symptom of uneasiness. With all this, under the ballot system, he must remain in entire ignorance of the state of the poll until the election is concluded.

On that first Monday in the August of 1840, the town was thronged with people by seven o'clock. The old politicians voted silently early in the morning. Then came the noisy crowd who could not vote without swearing and quarreling. There were shouts for "Little Van," and cries of "Hurrah for Tippecanoe," for, though the presidential election came months later, the state elections would go far toward deciding the contest by the weight of their example.

At midday, when the crowd was greatest, old Bob Harwell, a soldier of the Revolution, who had managed to live to an advanced age, by dint of persistent drunkenness and general worthlessness, was drawn to the polls in a carriage amid deafening cheers for the veteran, from the Whigs. The old man appreciated the dramatic position. Presenting his ballot with a trembling hand, he lifted his hat and swung it feebly round his head.

"Boys," he cried, in a quavering, mock-heroic voice, "I fit under General Wash'ton, an' I voted fer him, an' now I've voted fer General Harrison" (the old man believed that he had), "and if the hero of Tippecanoe is elected, I want to die straight out and be the fust one to go to heaven and tell Wash'ton that General Harrison's elected! Hurrah!"

"You'll be a mighty long while a-gittin' thar, you old sinner," cried one of the Democrats.

The old Swiss settlers and their descendants voted the Democratic ticket, probably from a liking to the name of the party. It is certain that they knew as little as their American fellow-citizens about the questions of finance which divided the two parties. After the Revolutionary relic had departed, there came an old Frenchman—one Pierre Larousse—who was commonly classed with the Swiss on account of his language, but who voted with the Whigs.

"W'at for you vote the W'ig tigget, eh?" cried out David Croissant, one of the older Swiss. "You are a turn-goat, to come to Ameriky an' not pe a damograt. *Sac-à-papier! Entrailles de poules!*"

"*Sac-r-r-ré! Le diable!*" burst out Larousse. "You dinks I is durn-goat. I dinks you lies one varee leetle pit. By gare! I nayvare pe a damograt. I see 'nough of damograts. *Sac-r-r-ré!* I leef in Paree. Robespierre vas a damograt. I hafe to veel of my head avairy morning to see eef it vas nod shop off. I no likes your damograts. Doo much plud. I likes my head zave and zound, eh? By gare! *Quel sacré imbecile!*"

It was with some difficulty that the Swiss Democrat and the French Whig were restrained from following their stout French oaths with stouter blows.

With such undignified accompaniments and interludes did the American citizen of that day perform the freeman's "kingliest act" of voting. The champion fighter of the western end of the county cheerfully accepted "a dare" from the champion fighter from the eastern end of the county, and the two went outside of the corporation line, and in the shade of the beautiful poplars on the river-bank pummeled each other in a friendly way until the challenger, finding that his antagonist had entirely stopped respiration, was forced to "hollow calf-ropes," that is, to signify by gestures that he was beaten.

Night came, and with it more drinking, noise, and fighting, filling up the time till the returns should come in. After nine o'clock, horsemen came galloping in, first by one road and then by another, bringing news from country precincts. On the arrival of the messenger, there was always a rush of the waiting idlers to that part of the public square between the court-house door and the town-pump. Here the tidings were delivered by the messengers and each party cheered in turn as the news showed that the victory wavered first to one side and then to the other. The Democrats became excited when they found that the county, which always had been a "stronghold," might possibly be carried by the Whigs. It was to them the first swash of the great opposition wave that swept the followers of Jackson from their twelve years' hold on the government.

In the first returns, Bonamy ran a few votes ahead of his ticket, and his friends were sure of his election. But to Mark there was a fearful waiting for the punishment of his sins. His flirtation with Nancy Kirtley did not seem half so amusing to him now that in a close election he began to see that Rocky Fork might put back the fulfillment of his ambition for years. Paying the fiddler is a great stimulus to the pricks of conscience.

When the returns from the Rocky Fork precinct were read, Mark was astonished to hear that where nearly every vote was Democratic, his friend, Major Lathers, had received twenty-five votes. His own vote in the same poll was precisely one. This must have been cast by old Gid Kirtley. Every other man in the Fork was his enemy. When the adjacent voting-places in Brown Township came to be heard from through the mud-bespattered messengers who had ridden their raw-boned steeds out of breath for the good of their country, Mark caught a little glimpse of the adroit hand of Lathers. He had lost twenty-four Whig votes to offset the twenty-five Democratic votes which Lathers received. There had then been a system of "trading off." This is what Lathers had been doing, while he, like a fool, had been dancing attendance on "that confounded Nancy Kirtley," as he now called her in his remorseful soliloquies.

At ten o'clock the two remote townships—York and Posey—were yet to be heard from. The whole case was to be decided by them. It was still uncertain whether

the Whigs or the Democrats had carried the county; but there was little hope that the two towns, usually Democratic, would give Whig majority enough to elect Bonamy. Meantime, the crowd were discussing the returns from Tanner Township. What made Bonamy fall so far behind? When the story of the dance began to be circulated, there was much derision of Mark's weakness and much chuckling over the shrewdness by which Major Lathers had made it serve his turn. But Lathers was quite unwilling to confess that he had betrayed his friend. When asked about his increased vote, he declared that "the dog-law and the likes done the business."

As the time wore on toward eleven, the impatient crowd moved to the upper part of the town, where they would intercept the messenger from York and Posey. Here, under the locusts in front of a little red building used as a hatter's shop, they stood awaiting the vote that was to decide the awful question of the choice of six or eight petty officers—a question which seemed to the excited partisans one of supreme moment.

All at once the horse's feet are heard splashing through mud and water. Everybody watches eagerly to see whether it be a Whig or a Democrat who rides, for, as is the messenger, so is his message.

"Hurra for York and Posey!"

Mark, who is in the crowd, notes that it is the voice of Dan Hoover, the Whig ring-leader in York. The voters surround him and demand the returns, for the Democrats still hope that Bonamy is beaten. But they can get but one reply from the messenger, who swings his hat and rises in his saddle to cry:

"Hurra for York and Posey!"

"Well, what about York and Posey, Hoover? We want to know," cries Mark, who can bear the suspense no longer. But Hoover is crazed with whisky and can give no intelligible account of the election in York and Posey. He responds to every question by rising in his stirrups, swinging his hat and bellowing out:

"Hurra for York and Posey, I say!"

After half an hour of futile endeavor to extract anything more definite from him, Mark hit upon an expedient.

"I say, Dan, come over to Dixon's and get a drink, you're getting hoarse."

This appeal touched the patriotic man. Mark got the spell of iteration broken and persuaded Hoover to give him a mem-

orandum which he carried in his pocket and which read:

"York gives 19 majority for the Whig ticket, Posey gives 7 majority for the same, Bonamy a little ahead of the ticket."

This indicated Mark's election. But he did not sleep soundly until two days later when the careful official count gave him a majority of thirteen.

With this favorable result his remorse for having cheated poor Jim McGowan out of his sweetheart became sensibly less, though he laid away some maxims of caution for himself, as that he must not run such risks again. He was not bad, this Mark Bonamy. He was only one of those men whose character has not hardened. He was like a shifting sand-bank that lay open on all sides to the water; every rise and fall or change of direction in the current of influence went over him. There are men not bad who may come to do very bad things from mere impressibility. He was not good, but should he chance to be seized by some power strong enough to master him, he might come to be good. Circumstances, provided they are sufficiently severe, may even harden such negatives into fixed character, either good or bad, after a while. But in Mark's present condition, full of exuberant physical life and passion, with quick perceptions, a lively imagination, ambitious vanity, a winning address and plenty of *bonhommie*, it was a sort of pitch and toss between devil and guardian angel for possession.

Set it down to his credit that he had kept sober on this election night. His victory indeed was not yet sure enough to justify a rejoicing which might prove to be premature. Drunkenness, moreover, was not an inherent tendency with Bonamy. If he now and then drank too much, it was not from hereditary hunger for stimulant, much less from a gluttonous love of the pleasures of gust. The quickened sense of his imprudence in the matter of the dance at Rocky Fork had a restraining effect upon him on election day. At any rate, he walked home at midnight with no other elation than that of having carried the election; and even this joy was moderated by a fear that the official count might yet overthrow his victory. It was while walking in this mood of half-exultation that Bonamy overtook Roxy Adams and her friend Twonnet, just in the shadow of the silent steam-mill.

"Good-evening, or good-morning, I de-

clare I don't know which to say," he laughed as he came upon them. "You haven't been waiting for election returns, have you?"

"Have you heard, Mark? are you elected?" inquired Roxy, with an eagerness that flattered Bonamy.

"Yes, I am elected, but barely," he replied. "But what on earth are you girls taking a walk at midnight for? I'll bet Roxy's been sitting up somewhere?"

"Yes," said the mischievous Twonnet, whose volatile spirits could not be damped by any circumstances, "of course we've been sitting up, since we haven't gone to bed. It doesn't take a member of the legislature to tell that, Honorable Mr. Bonamy."

This sort of banter from his old school-mate was very agreeable. Mark liked to have his new dignity aired even in jest, and in a western village where a native is never quite able to shed his Christian name, such freedoms are always enjoyed.

"But where have you been?" asked Mark, as he walked along with them.

"Up at Haz Kirtley's. His baby died about an hour ago," said Roxy, "and I sent for Twonnet to tell them how to make a shroud. She understands such things, you know."

"That's just what I am good for," put in Twonnet, "I never thought of that before. I knew that nothing was made in vain. There ought to be one woman in a town that knows how to make shrouds for dead people. That's me. But Roxy—I'll tell you what she's good for," continued the enthusiastic Swiss girl with great vivacity; "she keeps people out of shrouds. I might put up a sign, Mark, and let it read: 'Antoinette Lefaire, Shroud-maker.' How does that sound?"

"Strangers never would believe that you were the person meant," said Mark. "One sight of your face would make them think you had never seen a corpse. Besides, you couldn't keep from laughing at a funeral, Twonnet, you know you couldn't."

"I know it," she said, and her clear laugh burst forth at the thought. "I giggled to-night right over that poor dead baby, and I could 'a' whipped myself for it, too. You see, Haz Kirtley's sister was there. Haz is ignorant enough, but his sister—oh my!" and Twonnet paused to laugh again.

"Oh, don't, Twonnet,—don't laugh so," said Roxy. "I declare I can't get over that poor child's sufferings and its mother's scream when she saw it was dead. I used

to think low people of that sort hadn't any feeling, but they have. That sister of Haz's is an ignorant girl, and I don't like her much, but she *is* beautiful."

"She's the prettiest creature I ever saw," said Twonnet. "But when she looked at me so solemnly out of her large, bright eyes and told me that she knew that the baby must die, 'bekase the screech-owl hollered and the dog kep' up sich a yowlin' the livelong night,' I thought I'd die."

Mark could make but little reply to this. He had not thought of any kinship between Haz Kirtley the drayman, and Nancy Kirtley a dozen miles away on Rocky Fork. Had Nancy come into town to-day to be his Nemesis? He heartily wished he had never seen her. Without suspecting the true state of the case, Twonnet was seized with an uncontrollable impulse to tease.

"By the way, Mark," she began again, "while I was cutting out the shroud, Nancy Kirtley told me in confidence that she knew you well. She spoke of you as though you were a very particular friend, indeed."

"A candidate has to be everybody's very particular friend," said Mark, in a tone of annoyance, thinking of the seal he had given away the day before.

"She said you couldn't trot a reel very well, though," persisted Twonnet. "She claims to have danced with you all night, and she ought to know."

"Pshaw!" said Mark, "What a yarn!"

The evident vexation of Bonamy delighted Twonnet.

"Poor old Mr. White!" interrupted Roxy, who wished to make a diversion in Mark's favor. "There's his candle burning yet. They say he hasn't been able to sleep without it for twenty years. It must be an awful thing to have such a conscience."

Something in Mark's mood made him feel in an unreasonable way that this allusion to Mr. White's conscience was a thrust at himself. White was an old man who had shot and killed a man in a street affray, many years before, when the territory of Indiana was yet new and lawless, but the old man from that day had never closed his eyes to sleep without a light in his room.

They had now reached the little gate in the paling fence in front of Twonnet Lefaire's home, and Mark was glad to bid the vivacious tease good-night, and to walk on with Roxy, whose house lay a little further away in the direction of his own home. Now that Twonnet was out of sight his com-

placency had returned; but he was quite in the mood to-night to wish to live better, and he confided to Roxy his purpose to "turn over a new leaf," the more readily since he knew that she would cordially approve it, and approval was what he craved now more than anything else.

Besides, Roxy was the saint of the town. In a village nobody has to wait long to find a "mission." He who can do anything well is straightway recognized, and his vocations are numerous. The woman who has a genius for dress is forthwith called in consultation at all those critical life-and-death moments when dresses are to be made for a wedding, an infare, or a funeral. And the other woman whose touch is tender, magnetic and life-giving, is asked to "set up" with the sick in all critical cases. Such a one was Roxy Adams. The gift of helpfulness was born in her; and to possess the gift of helpfulness is to be mortgaged to all who need.

That night Roxy climbed the steep stairs to her room, and went to bed without writing in her diary. When one's heart is full, one is not apt to drop a plummet line into it; and now Roxy was happy in the reaction which helpfulness brings—for an angel can never make other people as happy as the angel is. And she was pleased that Mark had carried the election, and pleased to think that perhaps she had "dropped a word in season" that might do him good.

And while the innocent-hearted girl was praying for him, Mark was inwardly cursing the day he had met Nancy Kirtley, and resolving to cut her acquaintance, by degrees.

CHAPTER VI.

A GENRE PIECE.

WHITTAKER was one of those people who take offense gradually. Adams's rude remarks about preachers had rankled in him. The first day after he made up his mind that it was offensive. In two or three days he concluded that he would not visit the keen-witted but aggressive shoemaker again until some apology should be made. By the time the election was over he doubted whether he ought to greet Mr. Adams on the street if he should chance to meet him. At least he would let his crusty friend make the first advance.

Now Adams was penitent for his rudeness even while he was being rude; it was an involuntary ferocity. He had regretted

the words before he uttered them. He knew that he ought to apologize, but he must do even that by contraries. Meeting the minister one afternoon, right at the town pump, he stationed himself so as to block Whittaker's path, bowed, smiled grimly, and then came out with:

"Mr. Whittaker, you and I had some sharp words in our discussion about good old Henry VIII., the last time you were at my house. You haven't been there since, and you haven't been in the shop, either. It occurs to me that may be you said something on that occasion for which you would like to apologize. If so, you now have an opportunity."

This was said with such droll, mock-earnestness, that Whittaker could not but laugh.

"Of course I will apologize, Mr. Adams," he said, not without emphasis on the pronoun.

"And I," said the other, lifting himself up as if to represent the height of his own magnanimity,—“and I will freely forgive you. Come and see me to-night. I haven't had a human soul to quarrel with since you were there before, except Roxy, and she wont quarrel back worth a cent. Now the old score's wiped out and we've settled Blue-beard and his wives, come 'round to-night and abuse me about something else.”

"I'll come this very evening," said Whittaker.

"Now?"

"No; this evening."

"Oh! you're a confirmed Yankee," said Adams. "Why, it's evening now. After supper, we call it night. Come, let's reconcile the confusion of tongues. Come to supper. I suppose you call it tea. Come, we'll teach you English if you live in these wild heathen parts long. Now I've made up, I am aching to quarrel, I tell you."

Mr. Whittaker made some feeble resistance. But the village society was so insipid that he found in himself a yearning for the stimulant conversation of the paradoxical Adams. It was a relief to talk with somebody who did not give an *ex officio* deference to a minister's opinion. Perhaps there was an unconscious inclination to see Roxy again, but this did not come into the category of admitted reasons for eating supper with the shoe-maker.

When Roxy saw Mr. Whittaker coming home with her father, she put hat upon the reluctant Bobo and sent him home. Then she began to "fly around," as the

western phrase is, to get a supper "fit for a preacher." If Mr. Whittaker had been observant of trifles he might have foretold the character of the supper, for the "company supper," among the better families in a western town did not vary much. There was commonly fried chicken in a rich gravy made with cream: there was strong coffee with plenty of loaf-sugar and cream; there might be "preserves" of apple, or peach, or quince, of a tempting transparency, and smothered with cream; and then there were generally hot biscuits of snowy whiteness, or some of those wonderful "corn batter-cakes," which dwellers north of the great corn belt have never tasted. Western housekeepers are all Marthas. They feel obliged to "put themselves about," as the Scotch say, when they have company. And so Roxy got out the old china tea-pot and sugar-bowl which had come down from her grandmother, divers parts of handles, lids, and spouts having suffered those accidents which china is heir to, and been judiciously mended with cement. There were yet three tea-cups and two saucers of the old set left. The cups had dainty handles and were striped and flowered with gilt. She served the two saucers to her guest and her father, while she was forced to use a china cup with a saucer which did not match. I may add in digression that table manners were not the same then and there as now and here. Then one must not drink from the cup, but only from the saucer, into which the coffee was poured to cool. Such loose food as could not be eaten with an old-fashioned steel fork with two tines was gracefully and daintily shoveled into the mouth with the knife, but it was *de rigueur* that the knife should be presented with the back toward the lips. The little sauce-dishes even yet work their way slowly into use upon that latitude. In Philadelphia itself, I find some people to-day putting everything upon one plate. But when "preserves" were eaten with cream, as here at Roxy's table, they were taken from a saucer.

Supper over, the minister and the shoe-maker fell into a dispute, of course, and as Whittaker persisted in exasperating Adams by his politeness, and especially by his down-east interrogative of "What say?" when he did not comprehend the drift of his companion's remark, the rudeness of the shoe-maker might have grown as pronounced as it had been before, if a kindly chance had not made a break in the talk. Old

Tom Roberts—or, as the people would pronounce it, "Robberds"—had brought a load of unpressed hay to town, and having stood all day upon the street without finding a purchaser, had resolved in sheer despair to make a virtue of a necessity, and get rid of his hay by paying a long-standing debt for a pair of boots. The opportunity to collect such a debt was not to be missed, and Adams found it necessary to forego the company of his guest while he should stow away the hay in the mow, as Roberts pitched it off the wagon.

But Roxy, to make amends for her father's absence, hurried through with her work, and when she had cleared away the "super things," sat down in the sitting-room. There was an old-fashioned fire-place stuffed full of great green asparagus bushes now, to hide its black walls. Above was the mantel-piece, over which hung a common print of "Washington crossing the Delaware." In one corner stood the tall clock, whose loud, slow, steady, sixty beats to the minute was typical of the way in which time passed in those unprogressive days. There is a characteristic perversity and unsteadiness about the ticking of clocks nowadays—sharp-set, jerky things, with brass inside.

Roxy lit a candle and set it upon the round center-table of cherry-wood which stood in the middle of the floor, which was covered with bright new rag-carpet; and then, while Whittaker sat in the red, gilt-striped, rocking arm-chair, she sat upon a straight-back, splint-bottom rocker, swaying herself gently to and fro as she knitted and talked. A malediction on the evil genius who invented knitting-machines! There never was any accompaniment to talk like the click of knitting-needles. The employment of the fingers gives relief from all nervousness, gives excuse for all silence, gives occasion for droopings of the eyes, while it does not in fact preoccupy the mind at all. And then, I will forever maintain with sweet Charles Lamb, that there is no light like candle-light; it gives the mixed light and shadow so much prized by the old painters. Indeed, Roxy looked like a figure out of an ancient picture, as she sat there with the high lights brought out by the soft illumination of the candle, and with her background of visible obscurity. Hers was not what you would call a handsome face, in the physical sense. There was no sensuous beauty of red lips and softly rounded cheeks. But it was indeed a very

extraordinary face, full of passionate ideality, and with high enthusiasms shining through it. I have seen an emblematic face in an illuminated title to the Gospel of Matthew that was full of a quiet, heavenly joy, as though there were good tidings within, ever waiting to be told. This pure gladness there was in Roxy as she looked up now and then from her knitting. It was such a face as a master would have loved to paint, and would have worshiped after he had painted it. So it seemed to Whittaker, as he sat on one side of the table trying to guess which it was of all the saints he had seen in old prints that she was like. His eye took in the mantel-piece and the old clock in the corner, almost lost in the shadow, and, though he was not an artist, the sentiment of the picture moved him deeply.

Like most men who have lived bookish lives, Whittaker thought it needful to adapt his speech to the feminine understanding. He began talking to Roxy of her father, her garden, her chickens, her friends; but to all of his remarks or inquiries upon these subjects Roxy answered half absently. The minister was puzzled by this, and while he debated what course was best, the conversation flagged and an awkward silence ensued, which was presently broken by Roxy asking him what he thought of the experiences of President Edwards's wife.

Mr. Whittaker started a little. What did a village girl, and a Methodist at that, know of the experiences of Jonathan Edwards's wife? This then was the ground on which she was to meet him—not chickens, or garden, or girls, or beaux! From the experiences of Mrs. Edwards Roxy passed to the saints in the Methodist calendar—to Mrs. Fletcher, the lady preacher, to Mrs. Hester Ann Rogers, who accepted banishment to her mother's kitchen as a penalty for her piety, and thence to Lady Huntington, who was better known to Whittaker. The minister listened with wonder as her face glowed with sympathetic enthusiasm and thought he detected the latent ambition to be such a saint as these. He was a New Englander, and the training of a quieter school of religion had its place with him, but all the more did he wonder at finding in the heart of this imaginative girl an altar on which was burning so bright a flame of mystical devotion. He noticed then that in that face illuminated from within, there was something about the set of the lip that indicated a great endurance of pur-

pose. This mysticism might come to be more than a sentiment.

Mr. Adams came back again after a while and started a discussion on the merits of Napoleon Bonaparte, in which Mr. Whittaker ought to have been much interested. But somehow he did not now care anything about the justice or injustice of the execution of the Duc d'Enghien, and all the rasping paradoxes which the contradictory shoe-maker could put forth failed to arouse in him any spirit of contradiction. For Roxy had by this time put down her knitting and was passing in and out of the room attending to her household duties, and the preacher had come to feel that somehow the red-and-yellow striped rag-carpet, and the old clock and the splint-bottom chairs were made lovely by her presence. He watched her as she came in and went out, and wondered as he had often wondered before at that look of gladness in her face. He heard Mr. Adams say something about Bonaparte's being the one man in modern times who understood that the people needed to be governed. But what did he care for Bonaparte, or for modern times? Here was a saint—a very flesh and blood saint. A plague on all Bonapartes and garrulous shoe-makers!

And so the conversation lagged. The preacher was dull. He fell to agreeing in an imbecile fashion with everything Adams said. The latter, in sheer despair, vehemently asserted that Napoleon did right to divorce Josephine, to which Mr. Whittaker agreed, not awaking from his absent mood until he saw the look of surprise in Roxy's face. Then he stammered:

"Oh, I didn't know; what was I saying? What was your remark? I'm afraid I did not understand it. I thought you said Bonaparte did right to marry Josephine."

"No; to divorce her," said Adams. "You are not well to-night?"

"No, not very,—pretty well though for me; but excuse me, I didn't mean to agree with you about divorce. I think Bonaparte showed himself an atrocious scoundrel in that whole affair."

"Oh, you do, do you?" cried the other, pleased that he had at last started the game from cover. But when he ended a new eulogy upon Bonaparte and divorce, and waited for another reply, Mr. Whittaker was engaged in comparing a silhouette portrait of Roxy's mother which hung near the clock, with the profile of Roxy, who stood at the window looking under the half-

raised curtain at the crescent moon bravely sailing its little boat through a blue sea beset with great, white, cloud-burges against which it seemed ever about to go to wreck. When Mr. Adams found that his companion was not in the least interested in that "splendid prodigy" which had "towered among us wrapped in the solitude of his own originality," he gave up in despair and waited in the vain hope that the other would start something which might offer a better chance for contradiction. The minister, feeling embarrassed by his own inattentiveness, soon excused himself and bade Roxy and her father good-night. Once out of the house he strolled absently through the common, then back into the town, under the shadow of the trees, to his home in the house of Twonnet Lefaire's father.

The Swiss in that day held rigidly to Presbyterianism—that is to say, the few who were religious at all, attended the Presbyterian church. While they held it to be a deep and eternal disgrace for a Swiss to be anything but a Presbyterian, most of them, like Twonnet's father, did not much like a Presbyterianism which forbade them to hunt and fish on Sunday or to drink good wine. It was not so in the old country, they declared.

But Twonnet's mother was a Presbyterian truly devout, and the minister had sought board in a Swiss family that he might improve his French pronunciation. Mrs. Lefaire let him in on this evening with a cordial "*Bon soir*," and a volley of inquiries beginning with "*Pourquoi*," and relating to his reasons for not telling them that he was going out to tea. But when she saw by the minister's puzzled look that he only half understood her rapidly spoken French, she broke into a good-natured laugh and began to talk in English with real Swiss volubility and vivacity. Whittaker answered as best he could in his absent frame of mind, and soon managed to evade the hail-storm of the good woman's loquacity by bidding the family good-night and ascending to his room. He essayed, like a faithful and regular man that he was, to read a chapter in the Bible before going to bed, but he sat near the west window and kept looking off the book, at the moon now swimming low through the cloud-breakers near the western horizon. And he wondered what Roxy could have been thinking of when she was looking at the sky. He gave up the book presently and knit his brow. It was not love but finance that engaged his thought. How might an honorable man marry while his salary

consisted chiefly of a pittance of two hundred dollars a year which the Home Missionary Society allowed him as a stipend for founding a feeble Presbyterian church in a village already blessed with a Baptist church and a Methodist—and that when the young man owed a debt of five hundred dollars incurred in getting his education, toward the liquidation of which he could manage now to put by just twenty-five dollars a year? This question puzzled him and rendered him abstracted while he was at his prayers; it kept him awake until long, long after the moon's shallop had made safe harbor behind the hills.

Roxy was not kept awake: she only delayed long enough to read her Bible and pray and to enter in her diary:

"Had a very refreshing conversation this evening with Mr. Whittaker about the remarkable experiences of Mrs. Edwards, and the holy lives of Lady Huntington, Mrs. Rogers and Mrs. Fletcher. Oh, that the Lord would prepare me to do and suffer for Him in the same spirit!"

The outer form of this entry was borrowed no doubt from the biographies she read. But the spirit was Roxy's own.

CHAPTER VII.

TWONNET.

MR. WHITTAKER carefully abstained from going often to Mr. Adams's after the evening of his conversation with Roxy. For at the breakfast table next morning Twonnet had turned the conversation to her friend. She spoke seriously,—as seriously as *she* could,—but there was mischief lurking in the twinkle of her black eyes as she praised Roxy and watched Mr. Whittaker's face, which was paler than usual this morning. Her Swiss tongue must go about something, and nothing excited her enthusiasm more than the virtues of Roxy Adams.

"She's perfection," said Twonnet with moderation. "She's just perfection, Mr. Whittaker, and nothing less."

"She seems a very nice girl indeed," said the minister guardedly; but his reserve only amused Twonnet all the more, for now she laughed that clear, ringing laugh that is characteristic of Swiss girls; while every brown curl on her head shook.

"*Qu'as-tu?*" said her father, reproachfully.

"Oh, let her laugh, Mr. Lefauve," said Whittaker; "Twonnet's fun is always good-natured; but to save my life I couldn't tell what she is laughing at."

"Because you said that Roxy was a very nice person, Mr. Whittaker. You could almost say that of me now, and I am nobody along side of Roxy; nobody but a——"

"A giggler," said the mother with a quiet chuckle, the wrinkles about the corners of her eyes showing plainly that she had been what Twonnet was then. For a hearty chuckle is the old age of a giggle.

"I tell you what, Mr. Whittaker," said Twonnet, sipping her coffee and looking at the minister under her eyebrows, "Roxy is the kind of a person that people put in books. She is a Protestant saint; *Saint Roxy*, how would that sound?" This last was half soliloquy. "Roxy is the kind of person that would feel obliged to anybody who would give her a chance to be a martyr."

"*Toinette*," said the father, shaking his head, "*tais-toi!*" He was annoyed now because the younger children, seeing that Twonnet meant mischief, began to laugh.

"I'm not saying any harm," replied the daring girl, with roguish solemnity. "I only said that Roxy would like to be a martyr, and you think I mean that she would even marry a minister. I didn't say that."

The children tittered. Whittaker's pale face reddened a little, and he laughed heartily; but this time the father frowned and stamped his foot in emphasis of his sharp "*Tais-toi, Toinette, je te dis!*"

Twonnet knew by many experiments the precise limit of safe disobedience to her father. There was an implied threat in his "*Je te dis*," and she now reddened and grew silent with a look of injured innocence.

If Twonnet had had a lurking purpose to promote the acquaintance between Whittaker and Roxy Adams, she had defeated herself by her suggestion, for Whittaker hardly went near the old hewed-log house again in months. His foible was his honor, and one in his situation could not think of marriage, and, as he reasoned, ought not to make talk which might injure Roxy's interests if not his own. Twonnet was disappointed, and with her disappointment there was a lugubrious feeling that she had made a mistake. She said no more about Roxy, but she continued to tease the minister gently about other things, just because it was her nature to tease. Once Whittaker had tried to talk with her, as became his calling, about religion; but she could not help giving him droll replies which made his gravity unsteady, and brought the interview to a premature close.

(To be continued.)

AFTER MANY DAYS.

A STUDY OF KEATS.—I.

IN the first half of the last decade of the last century, a man named Jennings, whose Christian name has not been handed down, kept a large livery stable called "The Swan and Hoop" in Moorfields, opposite the entrance to Finsbury Circus. He had at least two sons and one daughter, whose Christian names have not been handed down either; and he had in his employ a young man of twenty-six or seven, whose name was Keats, but whose Christian name is also missing. He was the principal servant of Mr. Jennings, which means, I suppose, that he was his head groom. Short of stature, and well knit of person, was Mr. Keats, who is rather snobbishly described as a man of remarkably fine common-sense and native respectability, and so described by an English man of letters, who himself was only the son of a school-master. He had brown hair and hazel eyes, and was every way a comely person—for a groom. His comeliness commended him to a daughter of his master, who was tall, of good figure, with large oval face, somber features, and grave behavior, and she married him, and a very happy couple they were, I have no doubt. Whether they lived with Father Jennings after their marriage, or whether they lived apart by themselves, or where they lived at all in the wide world of London, no one has cared to discover, which any one might easily have done, for there have been directories of London for nearly two hundred years. It was not long before a man-child was born to them. We are beginning now to strike Christian names, though we have not yet reached the family Bible, or the parish register. George Keats was followed by John Keats, who came into the world on the 29th of October, 1795, two months earlier than he should have done, hastened, it is said, by the passionate love of amusement in his somber, saturnine mother, who comes down to us as Minerva and Venus. John was followed by Thomas, who was followed by Fanny, both of whom were presumably born in London. Of the early childhood of John Keats, only one anecdote is authenticated. It represents him as a little man of four or five, armed with an old sword, and standing for three or four hours as sentinel at the door of the sick-room of his enigmatical mother, whom the

doctor had ordered not to be disturbed till some specified time. The father of the English man of letters I have mentioned, a Mr. John Clarke, kept a school for boys at Enfield, the market-town and parish of Middlesex, about ten miles from London. Two of Mr. Jennings's sons had been educated there, and there John was sent, at an early age, before he had doffed his what-doye-call-ems, George having been sent before him, and Thomas after him. Mr. Keats often rode up the north road from London to see his boys, of whom he was very fond, and who, in turn, were very fond of him. He rode there once too often, for, on his return, he was killed by a fall from his horse. He was brought home a dead man, at the age of thirty-six, after ten years of happy married life—home to his disconsolate widow and darkened house.

The school-life of John Keats was remarkable for determination to excel in his studies, and for immense pugnacity. The Keats children inherited this quality, which ran in the blood of the Jennings family, one of whose members, and one of the two who had been educated at Enfield, was an officer under Duncan, admiral of the blue, in the great battle with the Dutch fleet off Camperdown,—a tall, strapping fellow, who was an especial mark for Mynheer's sharpshooters, when the admiral's ship, the "Venerable," went crashing into Admiral de Winter's vessel, which was obliged to strike her colors at last. He escaped unharmed, and was worshiped by his family ever after, and by no one more than his little nephew John, who was not quite two years old when this noble action was fought out to its triumphant ending. John would fight anybody, and for anything. An usher once boxed his brother Tom's ears,—an usher who could have put him in his pocket,—but he squared off at him, and struck him, like the boyish Cribb that he was. His brother George had to hold him down by main strength at times, when he was in "one of his moods," and was struggling to thrash him. He carried the same energy into his studies, and for the last two or three half years of his stay at Enfield, took the first prize for the greatest quantity of extra work. He began to work before the first school-hour; was at work through

almost all the hours of recreation, and through the afternoon holidays—the only boy left in school. They had to drive him out-of-doors to take exercise, he was so enamored of Latin and French. His favorite books in English were Tooke's "Pantheon," Spence's "Polymetis," and Lemprière's "Classical Dictionary." He read through the whole school library, which consisted of abridgments of voyages and travels and histories, Robertson's "America" and "Charles the Fifth," all Miss Edgeworth's stories, and the big folio of Burnet's "History of His own Times." He read no poetry, except Virgil's "*Æneid*," of which he had translated the whole twelve books when he was under fourteen, and he read no journals, except "The Examiner" of Leigh Hunt, which was started at that time, and was taken in by Mr. John Clarke. Such, in brief, was the school-life of John Keats at Enfield,—that pleasant old town, where there was once a royal Chase, which was disforested a few years before he was born; where there was a royal palace (it is in ruins now) in which the boy-king, Edward the Sixth, kept his court, and at which the Princess Elizabeth rested on her way to London to assume the crown of England. Historic, happy Enfield!

The saturnine, mercurial mother of the Keats children died suddenly of consumption early in 1810, and left one of them inconsolable. John shut himself up in a nook under the desk of the master for several days, and refused to be comforted. He had reason for his grief, poor child, for he was taken out of this school at Enfield in the summer of that year, before he was fifteen, and apprenticed by his guardian to a surgeon at Edmonton. His wishes, if he had any, were not consulted; he was placed in durance for five years. About thirty years before, a melancholy gentleman of fifty, who had been in durance for alienation of mind, sent all the readers in England on a helter-skelter ride from Cheapside to the Bell at Edmonton, and set them laughing at the mishaps which befel their hero, John Gilpin, on the way. Let us hope that the recollection of this imaginary ride sometimes tickled the fancy of the young surgeon in Church street, Edmonton. One pleasure certainly awaited him as often as once a week, and that was a walk over to Enfield, which was only two miles away, to have a long talk with his old master's son, Charles Cowden Clarke, who was nearly eight years older than himself, and who loaned him such

books as he wanted. Every man of letters, poet, dramatist, novelist, was made what he is by the first friend or friends that he made, and the first book or books that he read. Give us the knowledge of the personal and intellectual influences under which he wrote, and his surroundings at the time, and we can understand his work thoroughly; but not otherwise. Just after he had completed his sixteenth year, John Keats strolled over to Enfield one Wednesday or Saturday afternoon to chat with his friend Charles Cowden Clarke, and perhaps to return the last book that he had loaned him, and get another in exchange for it; and Clarke, after their hand-shaking was finished, and all small talk dismissed, sat down and enchanted him by reading a poem to him, written by Master Edward Spenser about two hundred and twenty years before, when he was wooing Mistress Elizabeth Nagle, and persuading her to become the mistress of Kilcolman Castle. It was Spenser's beautiful "*Epithalamion*," and Keats was enraptured with it. When he returned to Edmonton that night, he took back with him the first volume of Spenser's "*Faerie Queene*."

Before I proceed further I beg all who may honor me (and the immortal memory of Keats) by reading this paper, to read it with his poetical works in their hands, or on their tables, and, if possible, in the last edition thereof, edited by Lord Houghton, and published last year by Messrs. Bell & Sons of London. I desire to be followed closely and critically, as I hope I have followed the shining trail of this great poet.

The reading of the "*Faerie Queene*" spurred Keats into writing his first poem, which is in the Spenserian measure, and reflects the serene and lovely spirit of that early master. It reflects his Latin reading in the happy days at Enfield, and his English reading also, there, or elsewhere, for Dido and Lear are introduced into the third stanza. The two poems which follow this imitation of Spenser are so much inferior to it that one might suppose they were written before it, but the mention of Britomartis in the second destroys the supposition. The lady knight is there as Armida the fair, also Rinaldo the bold, and Oberon and Titania. The mention of Mrs. Tighe in the first poem indicates reading in the wrong direction; for the "*Psyche*" of Mrs. Tighe (who was the wife of the member of Parliament for Woodstock, and died at the age of thirty-seven) is very enervating reading. Her

memory is preserved (if it is preserved) only by Moore's exquisite lyric,

"I saw thy form in youthful prime."

These unfortunate trifles, the measure of which recalls the early measures of Moore, are noticeable only for their artificial elegance. The song beginning,

"Stay, ruby-breasted warbler, stay,"

is also in the manner of Moore, and not in his best manner. Succeeding this, in point of time (though not in Lord Houghton's arrangement), are two indifferent sonnets, one addressed to Chatterton, the other to Byron. The first was written under Spenserian influences, as the obsolete word "amate" shows, but the form is stricter than obtains in Spenser's sonnets, being (as Lamb would say) Italianate. The last, which preserves the Italian form, is the more indifferent of the two. Keats had completed his nineteenth year when he wrote it (December, 1814), and was probably thinking of "The Bride of Abydos" (1813); for neither "The Corsair," nor "Lara" (1814), was likely to attune his soul to tenderness.

Keats read no paper while at Enfield but the "Examiner," which Hunt had succeeded in making a power in the land,—a power which was very obnoxious to the Prince Regent and his servile ministers. It is an old story how he and his brother John were tried for libel in calling his bloated royal highness a fat Adonis of fifty, and so forth; and how they were convicted, fined, and confined for two years, Hunt in Horsemonger Lane Prison, and his brother elsewhere. Hunt's friends were indignant at his persecution, none more so than Keats, who had not met him, though he sympathized with his liberalism, and who was still studying surgery at Edmonton, and walking over to Enfield of a Wednesday or Saturday afternoon to talk with, and borrow books of, his friend Clarke. He was making one of these periodical visits in February, 1815, his twenty-first year, when he met Clarke, who was on his way to London to see Hunt, whose term of imprisonment had expired. The friends shook hands, the young school-master mentioned his pilgrimage, and the young surgeon turned back and accompanied him part of the way to Edmonton. At the last field-gate, when taking leave, he gave him the sonnet, "written on the day that Mr. Leigh Hunt left prison" (February 3d). It was his third sonnet, but the first

that had any intellectual value, being manly and independent in thought, and poetical in expression. Spenser and Milton figure in it, together with their spiritual enfranchisement of the imprisoned poet.

This was the first proof that Clarke had received of his having committed himself in verse, and he clearly remembered over thirty years afterward the conscious look with which he hesitatingly offered it. "There are some momentary glances of beloved friends that fade only with life." This noble sonnet was followed by an "Ode to Apollo," one of those lofty flights which young poets are fond of attempting, and in which they never succeed; and by a copy of verses, "To Hope," which appear to have been written at Edmonton in moments of despondency, which were rare with Keats at this period, and which were rather juvenile verses for a young man of twenty. I am following here the chronology of Lord Houghton, which I believe faulty, and which is certainly faulty in regard to the spirited "Hymn to Apollo" that is sandwiched between them. It was undoubtedly written later in the year.

The Hunt sonnet is cast in the approved, or one of the approved, Italian molds. I appreciate the difficulties which attended Lord Houghton in his attempted chronological arrangement of the early poems of Keats, for I feel them now myself. I believe, however, that what may be called Spenserian influences were at work again in his mind (if indeed they had ever ceased to work), and that their new blossom was the "Specimen of an Induction to a Poem," a beautiful example of rich, melodious and picturesque versification. There is a reference in it to Hunt, whom Keats had not yet met, whom he names *Libertas*, partly no doubt on account of his well-known love of liberty, but more, I think, in remembrance of his masque "The Descent of Liberty" (1815). I find in this "Induction" the first occurrence of feminine rhymes, which Keats scattered so freshly and profusely through this early exercise in heroic verse, and the first occurrence of short lines in the midst of heroic lines,—a pleasant musical artifice which he had caught from the young Milton. "Calidore," his next Spenserian exercise in heroics, is richer every way than the "Induction," more picturesque, freer in versification, and more nearly human, if any Spenserian poetry can be said to be human. Feminine rhymes are more thickly sown in it; it contains his first triplet, and the first

distinct trait of Cockney mannerism in the descriptive touch,

"And shadowy trees that lean
So elegantly o'er the waters' brim."

And in the description of Sir Gondibert,

"He was withal
A man of elegance and stature tall."

There are more short lines here than in the "Induction" (more "Lycidas," in a word), and one line, the scanning of which would have puzzled most Elizabethan poets:

"While whisperings of affection."

Between the stanzas "To Hope" and the "Induction," Lord Houghton has inserted the glittering lines "To —," beginning:

"Hadst thou lived in days of old."

I should have placed them elsewhere,—perhaps before the three sonnets on Woman, after "Calidore," which, I fancy, suggest a recent and not profound reading of Sydney's sonnets, as the lines "To —" suggest Fletcher's "Faithful Shepherdess," with faint remembrances of Spenser. The structure of these sonnets is the same as that of the Hunt sonnet. Another sonnet of this period—the one beginning:

"How many bards gild the lapses of time"—

was the means of introducing Keats to Hunt. But I must take up here the thread of the outward life of Keats, who had quitted Edmonton, and had gone to London to walk St. Thomas's Hospital,—an ancient house of suffering and healing, founded about six centuries before by the Prior of Bermondsey, and re-founded by the beneficent boy-king, Edward the Sixth, in his brief but glorious reign. Clarke, who had gone thither about the same time, and was living with his brother-in-law in Little Warner street, Clerk-enwell, received a letter from him one day, inviting him to his abode at 8 Dean street. He, in turn, invited Keats to his abode in Little Warner street. The young poet went, and it is not too much to say that the moment he crossed the threshold of his friend's door, he crossed the threshold of another poetical life. A Mr. Alsager (his Christian name is of no consequence), who was living opposite Horsemonger Lane Prison, when the libelous poet was incarcerated, where he had sent him over his first dinner, and who was now the money editor of the "Times,"—Mr.

Alsager, I say, had loaned Clarke the folio edition of old George Chapman's "Homer." The book was produced, as the "Faerie Queene" was produced about three years before, and if Keats had gone through that as a young horse would through a spring meadow, ramping, he went through this as the strong war-horses of Achilles went through the startled ranks of the Trojans,—tearing round the walls of Ilium with the mangled remains of the god-like Hector trailing behind his chariot-wheels. They read, read, read, and parted at day-spring, and when Clarke came down to his breakfast the next morning, he found a letter on his table, with no other inclosure than a sonnet,—but what a sonnet!—one of the few great sonnets in English poetry, the one "On first looking into Chapman's 'Homer.'" It was written (if I read his reminiscences correctly) at Keats's residence in Dean street, and dispatched by messenger to him in Little Warner street before ten o'clock. Truly, a new planet had swum into the ken of Keats.

When the doors of the Horsemonger Lane prison had closed for the last time upon Hunt and his family, he took a pretty little cottage for himself and them in the Vale of Health, on Hampstead Heath. It was within easy-reaching distance of London, the village standing about four miles from it on the southern slope of the Heath, which had a fine outlook over the neighbor lands, looking down upon the great dome of St. Paul's. Hampstead had been a favorite watering-place in the last century; now, like the tomb of old Thomas Churchyard, it inclosed poetry and poverty,—Leigh Hunt and his friends, some of whom made merry in prose, as did Hunt also, though no longer at the expense of his sensitive highness, the Prince Regent. Here Hunt was visited by Clarke, who took with him two or three of the poems he had received from Keats, including the sonnet already mentioned, and the grand Homeric sonnet (if that was written, of which I am not sure, though I think so), and possibly "Calidore," and the "Induction." Mr. Horace Smith (who was a merry writer in prose, and occasionally a good poet) was struck with the last six lines of the sonnet ("How many bards, etc."), especially the penultimate:

"That distance of recognizance bereaves."

"What a well-condensed expression!" he exclaimed, and justly. Clarke was delighted at the unhesitating and prompt admiration

which broke forth from Hunt before he had read twenty lines of the first poem (either "Calidore" or the "Induction"), and was questioned in regard to Keats personally, and with reference to any peculiarities of mind and manner, and was asked to bring him over to the Vale of Health. "That was a red-letter day in the young poet's life," says Clarke, "and one which will never fade with me as long as memory lasts. The character and expression of Keats's features would unfailingly arrest even the casual passenger in the streets; and now they were wrought to a tone of animation that I could not but watch with intense interest, knowing what was in store for him from the bland encouragement, and Spartan deference in attention, with fascinating conversational eloquence, that he was to encounter and receive. When we reached the Heath, I have present the rising and accelerated step, with the gradual subsidence of all talk, as we drew toward the cottage. The interview, which stretched into three 'morning calls,' was the prelude to many after-scenes and saunterings about Caen Wood and its neighborhood; for Keats was suddenly made a familiar of the household, and was always welcomed."

Hampstead Heath was now Parnassus to the eager young poet, whose next verse was inspired by it, and the beautiful scenery of which it was the outlook. I refer to the charming poem which has no title in the collected edition of his writings, but which begins:

"I stood tiptoe upon a little hill."

The idea of it came to him one delightful summer forenoon, as he stood beside a gate (which may be remaining still) that leads from the path-way on Hampstead Heath into a field by Caen Wood; but a dream of it, or something like it, had passed into his mind as he and Clarke were leaning one day over the rail of a foot-bridge that spanned a little brook in the last field above Edmonton. The brook and its surroundings, its tiny people, and possible glimpses of womanhood, were reflected in his imagination as he stood tiptoe like another Mercury on his heathy eminence, and he proceeded straightway to sketch them. Hitherto he had drawn only ideal landscapes; but on this immortal summer day the living colors of actual scenery painted themselves upon his glowing canvas, with their changing lights and shadows, and over all rose the dome of an authentic heaven. Every word was a picture, and every touch exquisite. The music of

the verse was as melodious as the music of his dear master, Spenser. Feminine rhymes are more abundant and closer together—more adjacent, in a word—than in "Calidore," and the range of vision and thought is larger. The eye of the naturalist guides the hand of the painter, and nowhere more surely than in its crystal reflection of the little brook and its swarms of minnows:

"How they ever wrestle
With their own sweet delight, and ever nestle
Their silver bellies on the pebbly sand!
If you but scantily hold out the hand,
That very instant not one will remain;
But turn your eye, and they are there again."

The influence of Spenser's verse is here, as well as the influence of the young Milton's verse; but the animating spirit of all—the spirit that was beginning to domineer over the genius of Keats—was the lovely mythology of Greece. He had already written a "Hymn to Apollo," you remember, and Lemprière's "Classical Dictionary," which Clarke says he appeared to *learn*, was one of his few favorite books at Enfield. Mythology floats into the poem, like the moon,

"Lifting her silver rim
Above a cloud, and with a gradual swim
Coming into the blue with all her light."

The moon inspires him with hinted suggestions of her qualities and influences,—as the word "sleep" inspired Shakspeare in writing the terrible gate-knocking scene in "Macbeth," and as the same word was to inspire Keats himself about four years later,—and he launches out, as I have said, into hinted suggestions of her beneficence to mankind:

"Thee must I praise above all other glories
That smile on us to tell delightful stories."

Then the souls of certain delightful mythological stories, the ghosts of beautiful shapes, rise like exhalations before the loving eye of his imagination,—Psyche and Love, Syrinx and Pan, Zephyrus and Narcissus, and last, "that sweetest of all songs," the love of Cynthia and Endymion. The conclusion of this charming poem is not only the perfection of picturesque writing, but it is the best and most evenly sustained verse that he had yet written, being at once musical and mellow. The influence of Hunt is visible in the unlucky phrase, "jaunty":

"Guess where the jaunty streams refresh themselves,"

and the extent of intimacy between the two poets is also visible in the line of verse which stands as the motto, and was selected from

"The Story of Rimini," which was not published until the following year. Keats had either read it in manuscript, or Hunt had read it to him; most likely the latter, for "loved Libertas" was not averse to reading his poetry to his friends. It is, I fear, a habit of poets, and one (*me judice*) more honored in the breach than in the observance. This poem was written, I think, at Edmonton. The poem which followed it, "Sleep and Poetry," or most of it, was certainly written at the Vale of Health, in the library of Hunt, where an extempore bed had been made up for Keats on the sofa. It is characterized by the poetic qualities that sparkle throughout the nameless poem I have just mentioned; is radiant with the same beauties of diction; is more thickly sprinkled with curious and happy phrases, and is every way more ambitious and daring. It is the most personal poem that Keats had yet ventured to write, and read by the light of his brief life, and in the shadow of his sad death, it is to me one of the most pathetic poems in the world. The heart of the young poet throbs through its impassioned lines. He tells us the secret of his soul, his burning desire and strong determination to be a poet. He implores the Spirit of Poesy to yield clear air from her sanctuary, smoothed by the breath of flowering bays, that he may die a luxurious death, and his young spirit may follow

"The morning sunbeams to the great Apollo
Like a fresh sacrifice."

He prays for ten years in which to overwhelm himself in poesy.

"So may I do the deed
That my own soul has to itself decreed."

He revels in thought in the countries that he sees in long perspective; and lovely woman is remembered lovingly. Then he has a vision in the heavens of a strange charioteer, who looks out with glorious fear upon the winds, and talks to the trees and mountains, until shapes of delight and mystery appear, and sweep by as if they were chasing ever-fleeting music.

"Most awfully intent
The driver of those steeds is forward bent,
And seems to listen; O that I might know
All that he writes with such a hurrying glow!"

The gladness of the youthful poet soon gives place to despondency, against which he struggles manfully, however, upheld by his belief in the strength of poesy, his description of which is incomparably noble,

while his knowledge of its great end is perfect. Does any one say that he has spoken presumptuously,—that he had better hide his foolish face from hastening disgrace? How!

"If I do hide myself, it sure shall be
In the very fane, the light of Poesy;
If I do fall, at least I will be laid
Beneath the silence of a poplar shade."

"Oh, for ten years!" sighed this glorious boy,—this poor boy, whose life-work was over in about five years, and whose life was ended in less than six years! What is it that Wordsworth sings?

"We poets in our youth begin in gladness,
But thereof come in the end despondency and madness."

"Sleep and Poetry" is a wonderful production for a boy in his teens. It abounds with life, and energy, and felicity. What can be happier than the thought that a bowery nook will be

"An eternal book
Whence I may copy many a lovely saying
About the leaves and flowers?"

Was ever poesy so well described as in the passage beginning: "A drainless shower of light is poesy"? and were its purpose and end ever so accurately stated as in the lines ending:

"It should be a friend
To soothe the cares and lift the thoughts of man?"

The hinted descriptions of sleep are as exquisite as the hinted descriptions of Cynthia already referred to; the management of feminine rhymes (of which there are in one place four pair together) is more skillful than before; the musical discords that result in harmony are introduced for the first time, and there is a bolder sweep of thought and expression. The versification is varied and effective, but a little too careless. The latter fault was partly due to the haste with which the poem was written, but more, I suspect, to Keats's admiration for the jaunty swagger of Hunt's poetic style. His contemptuous opinion of Pope and his following of indifferent versifiers was no doubt imbibed from Hunt's conversation. He has not yet learned to get rid of his "elegance," and he expressed a wish to "tease" his spirit. The last fifty lines are a description of Hunt's library and art-furniture, which "loved Libertas" was never without.

I find no sonnet written by Keats at this period until after the completion of "Sleep

and Poetry," which had fairly tested his strength of wing. The next sonnet ("Give me a golden pen, and let me lean") commemorates one of his leave-takings with the Hunts at an early hour in the evening, and his poetic ambitions, and discontent with himself:

"For what a height my spirit is contending!
'Tis not content so soon to be alone."

It is strictly Italian in form, and of no great intellectual value. Two or three months later (October, or November, 1815) he commemorated in another sonnet another symposium and leave-taking at the Vale of Health. The sonnet itself fixes the season when it was written:

"Keen fitful gusts are whispering here and there;"

and gives us a second glimpse of Hunt's little cottage, of the Miltonic conversations held there, and of Hunt's art-furniture:

"Lovely Laura in her light green dress,
And faithful Petrarch gloriously crown'd."

The form of this sonnet also is strictly Italian, and its general effect is picturesque and charming. About this time (perhaps a little before it, but certainly after penning "Sleep and Poetry") Keats produced his "Hymn to Apollo" ("God of the golden bow"), a rough but noble bit of versification, worthy of the young Pindar. If it has an original in English poetry, I have never seen that vigorous original. The inspirations of this "Hymn," and of the two sonnets just mentioned, stimulated the unsatisfied ambition of Keats, who felt the need of a broader flight, and straightway returned to his heroics. He had a friend—George Felton Mathew—who was a poet like himself, and to whom he addressed a poetic epistle, apparently from London, where he was still walking St. Thomas's Hospital. It is a frank, friendly, eager poem,—better in mere workmanship than "Sleep and Poetry," and beautifully picturesque. It is a curious poem to the literary student, in that it indicates the English poets with whom Keats was more or less familiar,—Chatterton and Milton, traces of whom we have met with before, Burns and William Browne, who are new to us; and Beaumont and Fletcher, whose influence we have already suspected. There are fewer feminine rhymes here than in "Sleep and Poetry;" and there is one triplet and one Alexandrine, each the first of its kind in his early poetry. The date of this epistle is November, 1815, the age of the writer—twenty.

VOL. XV.—14.

If the reader who has thus far honored me with his attention, will now take up his Keats, and read the poems which this marvelous young man wrote in ten months, in the chronological order that I have suggested,—beginning with the sonnet written on the day that Mr. Leigh Hunt left prison (February 3d), and ending with this poetic epistle to George Felton Mathew (November), he can trace for himself, as well as I can trace it for him, the sudden and glorious flowering of this beautiful genius. I know of no such growth in the life of any English poet, no such aspiration, struggle, and triumph. Truly, as Keats wrote of himself, later,—or earlier, as Lord Houghton thinks:

"The flower must drink the nature of the soil
Before it can put forth its blossoming."

The second year of Keats's poetic life (1816) witnessed the introduction of no new element in his reading, so far as I can discover, and no very marked growth of his genius. There was a slight improvement in his literary workmanship, however, and an increased firmness of touch. He produced during this year two poetic epistles,—one addressed to his brother George, written in August, and another written in September, and addressed to Charles Cowden Clarke. Besides these poems he certainly wrote ten sonnets (of which more hereafter), and he probably wrote three more sonnets which I shall point out. The epistle to his brother opens with a mental description of the despondency common among young poets, and passes to the reaction which speedily follows it, and in which they see nothing but poesy in water, earth or air. Knightly Spenser has told this to *Libertas* (whose story of "Rimini" has probably been published), and has helped his eager disciple to the picturesque suggestions which crowd upon him. Kindling with his theme, and with the living pleasures of the bard (which are generally imaginary ones), the spirit of inspiration impels Keats to foretell his reputation. He celebrates his apotheosis in the delicious passage beginning:

"Lays have I left of such a dear delight—"

and ending with:

"Lured by the innocent dimples."

These twenty lines of exquisite verse are worthy of any poet that ever lived. He thinks he would be happier and dearer to society if he could smother his ambition,

but he makes no attempt to smother it, for after all it is a delight to him; and when some bright thought has darted through his brain,

"Through all that day I've felt a greater pleasure
Than if I had brought to light a hidden treasure."

Of course he has, and he is glad that his "dear friend and brother" likes his sonnets, "though none else should heed them." But you know better than that, Master Junkets; for it was one of these very sonnets that introduced you to Mr. Leigh Hunt, and you know in your soul that no English poet ever wrote a finer sonnet than yours "On first looking into Chapman's Homer." Pray you, avoid the affectations of your friend Hunt. Over sixty years have passed since Keats penned this fraternal epistle, which is as fresh and sunny as on the day it was scribbled. We see him stretched out on the grass with his head pillowed on flowers; but we do not quite see where he is—at least I do not—on the

"Lofty cliff which proudly towers
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It is a lovely place wherever it is (I suspect it was Margate), with a glorious outlook, for the quivering shadows of stalks and blades checker the tablet he is writing upon. On one side of him he sees the scarlet coats of the poppies through a field of drooping oats:

"So pert and useless that they bring to mind
The scarlet-coats that pester human kind."

On the other side is the blue mantle of the ocean streaked with purple and green. Now he sees a ship under full sail, and notes the silver spray curling round her prow; and now he sees

"The lark down-dropping to his nest,
And the broad-wing'd sea-gull never at rest;
For when no more he spreads his feathers free,
His breast is dancing on the restless sea."

Why does Keats direct his eyes toward the sunset?

"Why westward turn? 'Twas but to say adieu!
'Twas but to kiss my hand, dear George, to you!"

The epistle to Clarke is almost perfect of its kind. The opening lines descriptive of the sailing of a swan show clearly that another swan was sailing with outspread wings, a proud breast, and a triumphant heart on the shining river of English song that delighted to reflect the white shadow

of his genius. He tells his friend Charles that he has never penned a line to him, because his thoughts were never free and clear, nor fit to please his classic ear; and because his wine was of too poor a savor to please his palate which gladdened in the flavor of Helicon. He reminds him of the books that he had read, of his Tasso, his Spenser and his Shakspeare, and of the forest walks that he had lately been taking with the wronged Libertas, and he says that he was still unwilling to try his dull, unlearned quill for him. Nor should he try it then, but that he had known him long, and had been first taught all the sweets of song by him. That Master Clarke had had a very intelligent pupil is evident in the lines which immediately follow this beautiful compliment to him—lines which no other English poet could have written, and which are remarkable for critical insight and accurate definition. I mean the glorious lines that state the characteristics of the sonnet, the ode, the epigram, and the epic:

"Round, vast, and spanning all, like Saturn's
ring."

He feigns that Clarke found these for him, and pointed out to him the patriot's stern duty, which was, of course, to shoot Gessler, as Tell did not, and to slay Cæsar, as Brutus and his fellow conspirators did.

"Ah, had I never seen
Or known your kindness, what might I have
been?"

Can he ever forget his benefits and repay the friendly debt? No,—doubly no. But if these rhymings please him, he shall roll on the grass with twofold ease. For he has for a long time been hoping that he would one day think the reading of his rough verses not an hour misspent.

"Should it e'er be so, what a rich content!"

The modesty of all this is admirable. He reminds Clarke that some weeks have passed since he last saw the spires reflected in the Thames, and intimates that warm desires to see the sunrise and the morning shadows streaking into slimmess across the lawny fields and pebbly water, to feel the air that plays about the hills,—

"And sips its freshness from the little rills,"—

to see the high, golden corn wave upon a summer's night in the light of the moon

when she peers among the little black and white clouds, as though she were reclining in a bed of bean-blossoms—desires for all this pleasure have brought him where he is. Then he began to think of rhymes and measures, and the air seemed to say in passing by him:

"Write! thou wilt never have a better day."

And write he did, though he was not smitten with the grace of his lines. Yet as his hand was warm, he thought he had better send him what he had written. Many days had passed since he had seen him sitting before the piano, and warming his heart with Mozart and Arne and Handel and the Irish Melodies, since he had walked with him through shady bowers, reveling in chat that ceased not there, nor at night when they got together over his books.

"No, nor when supper came, nor after that,—
Nor when reluctantly I took my hat;
No, nor till cordially you shook my hand
Midway between our homes; your accents bland
Still sounded in my ears, when I no more
Could hear your footsteps touch the gravelly
floor.

Sometimes I lost them, and then found again;
You changed the foot-path for the grassy plain.
In those still moments I have wished for joys
That well you know to honor: 'Life's very toys,
With him,' said I, 'will take a pleasant charm;
It cannot be that aught will work him harm.'
These thoughts now come o'er me with all their
might;—

Again I shake your hand,—friend Charles, good-
night."

I know not how it may strike others, but this bright glimpse of the early life and friendship of Keats—this leaf from the book of his happy memories—is to me charming. The poem is nearly perfect, in spite of its carelessness, but not quite so.

"With him who elegantly chats and talks"

is a bit of Cockneyism unworthy of any poet, though Hunt would no doubt have sanctioned it. "Water" and "shorter" are ludicrously bad rhymes, and the word "wean" in the line,

"Verses from which the soul would never wean,"

smacks a little too freshly of the nursery. Keats, by the way, had already used it in "Sleep and Poetry," toward the close of that lovely but uneven poem, in the passage that describes the pictures in Hunt's library, *i. e.*:

"Petrarch, outstepping from the shady green,
Starts at the sight of Laura; nor can wean
His eyes from her sweet face."

A wiser friend than Hunt would have kindly pointed out the dubious taste implied in the serious use of that phrase, and of the word "tease," and Keats, whose mind was as modest as it is possible for a poet's mind to be, would, I am sure, have seriously considered it. But Hunt was full of verbal affectations, which, perhaps, were instinctive with him, and was therefore a lenient critic of the mannerisms of his young friend. Let me just note in passing that this epistle abounds in musical discords which there is no difficulty in reading, especially if one has captured the open secret of Swinburne's glorious harmonies.

The sonnets of 1816 are not equal on the whole to the sonnets that Keats wrote in the preceding year. They are Italian in form, but not strictly so, for two of the ten violate Italian sonnetary laws by rhyming couplets in the two tercets. They were written, I should say, at the same period,—the summer of 1816. One certainly was ("The church bells toll'd a melancholy round"); another probably was, and most likely in London ("O Solitude! if I with thee must dwell"); of the third ("As from the darkening gloom") I am less certain. It reads like an exercise of fancy—a forced inspiration of a supposed death, written for practice, and to keep his hand in. It has no value whatever. The best sonnets of this year were written in November and December. They are the fraternal sonnet, "To my Brothers," which bears the date of November 18th; the sonnet "To Kosciuszko," which was written about November 12th; and the two sonnets addressed to Haydon, which are dated November 19th. There is a cozy, comfortable feeling of home in the brotherly sonnet, which was written on the birthday of Thomas Keats, and which breathes a prayer for his health and longevity:

"Many such eves of gently whispering noise
May we together pass, and calmly try
What are this world's true joys, ere the great
Voice
From its fair face shall bid our spirits fly."

But it was not to be. For scarcely two years passed before the great Voice summoned poor Tom; and scarcely four years and three months passed before the mighty spirit of John passed out into the Unknown. Among the sonnets of this summer (1816),

there is one which expresses his contentment with his country ("Happy is England!") and which at the same time expresses an unsatisfied desire to be elsewhere:

"Yet do I sometimes feel a languishment
For skies Italian."

His languishment was fulfilled; for in less than five years he was under Italian skies, and under Italian earth with its daisies growing over him!

"I weep for Adonais,—he is dead!"

To return, however, to his verse. The sonnet beginning, "Had I a man's fair form," which I believe to have been written during the second poetical year of Keats, reads to me like another exercise of fancy, and faintly reflects the manner of Sydney's sonnets. The sonnet "To a Friend who sent me some roses" was, I think, written at this period, and is now known to have been addressed to that remarkable poet and man of genius, Charles Wells, the author of that unique Elizabethan dramatic poem, "Joseph and his Brethren." I attribute to this period a third sonnet addressed "To a Young Lady who sent me a Laurel Crown." It is very spirited and ambitious, and, speaking after the manner of Walter Savage Landor, I am sure there is a story in it. *Voilà*. It was sent to Keats when he was at Hampstead Heath, in Hunt's cottage, and he accepted it gladly, but only to present it to Hunt, who made no scruples about accepting it, and who wrote two sonnets about it (or about a crown of ivy which Keats presented to him), which sonnets may be found to-day in the first edition of his "Foliage" (1818). None of Landor's "Imaginary Conversations," and none of Sir Egerton Brydges's "Imaginary Biographies," is so veritable as this pleasant little anecdote. The sonnet "To Kosciusko" was either inspired by a sonnet of Hunt's addressed to that famous soldier, or was written at the same time as that sonnet, in a friendly poetical duel. The sonnet "On the Grasshopper and the Cricket" was struck out in one of these immortal duels, to which Hunt was the challenger. "No one was present but myself," says Clarke, "and they accordingly set to. I, absent with a book at the end of the sofa, could not avoid furtive glances, every now and then, at the emulants. I cannot say how long the trial lasted; I was not proposed umpire, and had no stop-watch for

the occasion; the time, however, was short for such a performance, and Keats won, as to time. But the event of the after-scrutiny was one of many such occurrences which have riveted the memory of Leigh Hunt in my affectionate regard and admiration, for unaffected generosity and perfectly unpretentious encouragement; his sincere look of pleasure at the first line,—

'The poetry of earth is never dead.'

'Such a prosperous opening!' he said, and when he came to the tenth and eleventh lines,

*'On a lone winter evening, when the frost
Has wrought a silence.'*

'Ah, that's perfect! bravo, Keats!' and then he went on in a dilation upon the dumbness of all Nature during the season's suspension and torpidity. With all the kind and gratifying things that were said to him, Keats protested to me, as we were afterward walking home, that he preferred Hunt's treatment of the subject to his own." The second poetic year of Keats closed prosperously with this delightful sonnet, which was written on the evening of December 30th, 1816.

I write after an interval of more than sixty years from this period of the life of Keats, and at a distance of three thousand miles, more or less, from London, Hampstead, and their neighborhoods where it was passed,—consequently I write at a disadvantage, depending solely upon my books. Lord Houghton's "Life, Letters and Literary Remains" (1848) tells me that Keats scribbled doggerel rhymes among the notes which he took of the medical lectures that he attended, and that he enriched with the same doubtful ore the notes of his fellow students when he obtained possession of them. "Of course, his peculiar tastes did not find much sympathy in that society. Whenever he showed his graver poetry to his companions, it was pretty sure to be ridiculed and severely handled. They were therefore surprised when, on presenting himself for examination at Apothecaries' Hall, he passed his examination with considerable credit. When, however, he entered on the practical part of his business, although successful in all his operations, he found his mind so oppressed during the task with an overwrought apprehension of the possibility of doing harm, that he came to the determined conviction that he was unfit for the line of life on which he had expended so

many years of his study and a considerable part of his property. 'My dexterity,' he said, 'used to seem to me a miracle, and I resolved never to take up a surgical instrument again,' and thus he found himself, on his first entrance into manhood, thrown on the world almost without the means of daily subsistence, but with many friends interested in his fortunes, and with the faith in the future which generally accompanies the highest genius." Clarke states that Keats's profession had been *chosen for him*, and that he made no secret of his dislike to it. "The other day, for instance," he said to Clarke, "during the lecture, there came a sunbeam into the room, and with it a whole troop of creatures floating in the ray, and I was off with them to Oberon and Fairy-land." The sunbeam that came into the life of Keats was his coming to age in his second poetical year, and becoming his own master. When that auspicious October day closed it closed the doors of Apothecaries' Hall and St. Thomas's Hospital, and deprived the disciples and followers of Galen and Hippocrates of an illustrious brother. If Thomas Lovell Beddoes had made the same decision as Keats about ten years later, the nineteenth century would have rivaled the sixteenth with a second and greater Marlowe. Doctor Keats deceased in 1816, and was succeeded—but not in his business—by Keats the poet.

We have two verbal portraits of this beautiful genius at this time, and both by skillful painters,—Leigh Hunt and Benjamin Robert Haydon. "He was under the middle height," says Hunt, "and his lower limbs were small in comparison with the upper, but neat and well turned." (How like the elegant *Libertas* that last touch is!) "His shoulders were very broad for his size; he had a face in which energy and sensibility were remarkably mixed up, an eager power, checked and made patient by ill-health." (But the checked and patient look came later). "Every feature was at once strongly cut and delicately alive. If there was any faulty expression it was in the mouth, which was not without something of a character of pugnacity. The face was rather long than otherwise; the upper lip projected a little over the under; the chin was bold; the cheeks sunken; the eyes mellow and glowing, large, dark and sensitive. At the recital of a noble action or a beautiful thought, they would suffuse with tears, and his mouth trembled." Thus far, his fellow-poet. "He was below the middle size," says Haydon, "with a low

forehead, and an eye that had an inward look, perfectly divine, like a Delphian priestess who saw visions." (Bravo, Haydon!) "I read one or two of his sonnets, and formed a very high idea of his genius. After a short time I liked him so much that a general invitation on my part followed, and we became extremely intimate. He visited my painting-room at all times, and at all times was welcome." One would like to know which one or two of Keats's sonnets it was that led Haydon to form his very high idea of his genius, and one comes to the conclusion—I do, at least—that it was the two which he addressed to him. Lord Houghton speaks of Keats's habit of spending frequently his evenings in Haydon's painting-room, where many men of genius were wont to meet, and, sitting before some picture on which he was engaged, criticise, argue, defend, attack, and quote their favorite writers,—"*making us wings for the night*," as Keats used to put it. And Haydon himself describes one of these gatherings where an immortal dinner came off (modesty, you see, was Haydon's foible), at which Keats, Wordsworth, Lamb, Leitch Ritchie, and an unfortunate comptroller of stamps were present, and at which—or, to be more exact, at the tea which followed it—Lamb quizzed the poor devil so unmercifully that Keats and Haydon hurried him into the painting-room, shut the door, and gave way to inextinguishable laughter.

I must not write about this, however (you can read it for yourselves in Tom Taylor's "*Life of Haydon*"), nor about any of the guests at that immortal dinner,—but introduce my readers to an early friend of Keats's whom I could not bring in till now. This was Mr. John Hamilton Reynolds, whose father was head writing-master at Christ's Hospital, and who was residing then with his family in Little Britain. He was a year older than Keats, whom he outlived thirty-one years, and was coming into notice among the young poets of England. Byron mentions him and his first poem in his journal, under the date of February 28th, 1814: "Answered—or rather acknowledged—the receipt of young Reynolds's Poem, *Safie*. The lad is clever, but much of his thoughts are borrowed—*whence*, the reviewers may find out. I hate discouraging a young one; and I think—though wild, and more oriental than he would be, had he seen the scenes where he has placed his Tale—that he has much talent, and, certainly fire enough."

but he makes no attempt to smother it, for after all it is a delight to him; and when some bright thought has darted through his brain,

"Through all that day I've felt a greater pleasure
Than if I had brought to light a hidden treasure."

Of course he has, and he is glad that his "dear friend and brother" likes his sonnets, "though none else should heed them." But you know better than that, Master Junkets; for it was one of these very sonnets that introduced you to Mr. Leigh Hunt, and you know in your soul that no English poet ever wrote a finer sonnet than yours "On first looking into Chapman's Homer." Pray you, avoid the affectations of your friend Hunt. Over sixty years have passed since Keats penned this fraternal epistle, which is as fresh and sunny as on the day it was scribbled. We see him stretched out on the grass with his head pillowed on flowers; but we do not quite see where he is—at least I do not—on the

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'Twas but to kiss my hand, dear George, to you!"

The epistle to Clarke is almost perfect of its kind. The opening lines descriptive of the sailing of a swan show clearly that another swan was sailing with outspread wings, a proud breast, and a triumphant heart on the shining river of English song that delighted to reflect the white shadow

of his genius. He tells his friend Charles that he has never penned a line to him, because his thoughts were never free and clear, nor fit to please his classic ear; and because his wine was of too poor a savor to please his palate which gladdened in the flavor of Helicon. He reminds him of the books that he had read, of his Tasso, his Spenser and his Shakspeare, and of the forest walks that he had lately been taking with the wronged Libertas, and he says that he was still unwilling to try his dull, unlearned quill for him. Nor should he try it then, but that he had known him long, and had been first taught all the sweets of song by him. That Master Clarke had had a very intelligent pupil is evident in the lines which immediately follow this beautiful compliment to him—lines which no other English poet could have written, and which are remarkable for critical insight and accurate definition. I mean the glorious lines that state the characteristics of the sonnet, the ode, the epigram, and the epic:

"Round, vast, and spanning all, like Saturn's
ring."

He feigns that Clarke found these for him, and pointed out to him the patriot's stern duty, which was, of course, to shoot Gessler, as Tell did not, and to slay Cæsar, as Brutus and his fellow conspirators did.

"Ah, had I never seen
Or known your kindness, what might I have
been?"

Can he ever forget his benefits and repay the friendly debt? No,—doubly no. But if these rhymings please him, he shall roll on the grass with twofold ease. For he has for a long time been hoping that he would one day think the reading of his rough verses not an hour misspent.

"Should it e'er be so, what a rich content!"

The modesty of all this is admirable. He reminds Clarke that some weeks have passed since he last saw the spires reflected in the Thames, and intimates that warm desires to see the sunrise and the morning shadows streaking into slimness across the lawny fields and pebbly water, to feel the air that plays about the hills,—

"And sips its freshness from the little rills,"—

to see the high, golden corn wave upon a summer's night in the light of the moon

when she peers among the little black and white clouds, as though she were reclining in a bed of bean-blossoms—desires for all this pleasure have brought him where he is. Then he began to think of rhymes and measures, and the air seemed to say in passing by him:

"Write! thou wilt never have a better day."

And write he did, though he was not smitten with the grace of his lines. Yet as his hand was warm, he thought he had better send him what he had written. Many days had passed since he had seen him sitting before the piano, and warming his heart with Mozart and Arne and Handel and the Irish Melodies, since he had walked with him through shady bowers, reveling in chat that ceased not there, nor at night when they got together over his books.

"No, nor when supper came, nor after that,—
Nor when reluctantly I took my hat;
No, nor till cordially you shook my hand
Midway between our homes; your accents bland
Still sounded in my ears, when I no more
Could hear your footsteps touch the gravelly
floor.

Sometimes I lost them, and then found again;
You changed the foot-path for the grassy plain.
In those still moments I have wished for joys
That tell you know to honor: 'Life's very toys,
With him,' said I, 'will take a pleasant charm;
It cannot be that aught will work him harm.'
These thoughts now come o'er me with all their
might;—

Again I shake your hand,—friend Charles, good-
night."

I know not how it may strike others, but this bright glimpse of the early life and friendship of Keats—this leaf from the book of his happy memories—is to me charming. The poem is nearly perfect, in spite of its carelessness, but not quite so.

"With him who elegantly chats and talks"

is a bit of Cockneyism unworthy of any poet, though Hunt would no doubt have sanctioned it. "Water" and "shorter" are ludicrously bad rhymes, and the word "wean" in the line,

"Verses from which the soul would never wean,"

smacks a little too freshly of the nursery. Keats, by the way, had already used it in "Sleep and Poetry," toward the close of that lovely but uneven poem, in the passage that describes the pictures in Hunt's library, *i. e.*:

"Petrarch, outstepping from the shady green,
Starts at the sight of Laura; nor can wean
His eyes from her sweet face."

A wiser friend than Hunt would have kindly pointed out the dubious taste implied in the serious use of that phrase, and of the word "tease," and Keats, whose mind was as modest as it is possible for a poet's mind to be, would, I am sure, have seriously considered it. But Hunt was full of verbal affectations, which, perhaps, were instinctive with him, and was therefore a lenient critic of the mannerisms of his young friend. Let me just note in passing that this epistle abounds in musical discords which there is no difficulty in reading, especially if one has captured the open secret of Swinburne's glorious harmonies.

The sonnets of 1816 are not equal on the whole to the sonnets that Keats wrote in the preceding year. They are Italian in form, but not strictly so, for two of the ten violate Italian sonnetary laws by rhyming couplets in the two *terzettes*. They were written, I should say, at the same period,—the summer of 1816. One certainly was ("The church bells toll'd a melancholy round"); another probably was, and most likely in London ("O Solitude! if I with thee must dwell"); of the third ("As from the darkening gloom") I am less certain. It reads like an exercise of fancy—a forced inspiration of a supposed death, written for practice, and to keep his hand in. It has no value whatever. The best sonnets of this year were written in November and December. They are the fraternal sonnet, "To my Brothers," which bears the date of November 18th; the sonnet "To Kosciuszko," which was written about November 12th; and the two sonnets addressed to Haydon, which are dated November 19th. There is a cozy, comfortable feeling of home in the brotherly sonnet, which was written on the birthday of Thomas Keats, and which breathes a prayer for his health and longevity:

"Many such eves of gently whispering noise
May we together pass, and calmly try
What are this world's true joys, ere the great
Voice
From its fair face shall bid our spirits fly."

But it was not to be. For scarcely two years passed before the great Voice summoned poor Tom; and scarcely four years and three months passed before the mighty spirit of John passed out into the Unknown. Among the sonnets of this summer (1816),

there is one which expresses his contentment with his country ("Happy is England!") and which at the same time expresses an unsatisfied desire to be elsewhere:

"Yet do I sometimes feel a languishment
For skies Italian."

His languishment was fulfilled; for in less than five years he was under Italian skies, and under Italian earth with its daisies growing over him!

"I weep for Adonais,—he is dead!"

To return, however, to his verse. The sonnet beginning, "Had I a man's fair form," which I believe to have been written during the second poetical year of Keats, reads to me like another exercise of fancy, and faintly reflects the manner of Sydney's sonnets. The sonnet "To a Friend who sent me some roses" was, I think, written at this period, and is now known to have been addressed to that remarkable poet and man of genius, Charles Wells, the author of that unique Elizabethan dramatic poem, "Joseph and his Brethren." I attribute to this period a third sonnet addressed "To a Young Lady who sent me a Laurel Crown." It is very spirited and ambitious, and, speaking after the manner of Walter Savage Landor, I am sure there is a story in it. *Voilà*. It was sent to Keats when he was at Hampstead Heath, in Hunt's cottage, and he accepted it gladly, but only to present it to Hunt, who made no scruples about accepting it, and who wrote two sonnets about it (or about a crown of ivy which Keats presented to him), which sonnets may be found to-day in the first edition of his "Foliage" (1818). None of Landor's "Imaginary Conversations," and none of Sir Egerton Brydges's "Imaginary Biographies," is so veritable as this pleasant little anecdote. The sonnet "To Kosciusko" was either inspired by a sonnet of Hunt's addressed to that famous soldier, or was written at the same time as that sonnet, in a friendly poetical duel. The sonnet "On the Grasshopper and the Cricket" was struck out in one of these immortal duels, to which Hunt was the challenger. "No one was present but myself," says Clarke, "and they accordingly set to. I, absent with a book at the end of the sofa, could not avoid furtive glances, every now and then, at the emulants. I cannot say how long the trial lasted; I was not proposed umpire, and had no stop-watch for

the occasion; the time, however, was short for such a performance, and Keats won, as to time. But the event of the after-scrutiny was one of many such occurrences which have riveted the memory of Leigh Hunt in my affectionate regard and admiration, for unaffected generosity and perfectly unpretentious encouragement; his sincere look of pleasure at the first line,—

'The poetry of earth is never dead.'

'Such a prosperous opening!' he said, and when he came to the tenth and eleventh lines,

'On a lone winter evening, when the frost
Has wrought a silence.'

'Ah, that's perfect! bravo, Keats!' and then he went on in a dilation upon the dumbness of all Nature during the season's suspension and torpidity. With all the kind and gratifying things that were said to him, Keats protested to me, as we were afterward walking home, that he preferred Hunt's treatment of the subject to his own." The second poetic year of Keats closed prosperously with this delightful sonnet, which was written on the evening of December 30th, 1816.

I write after an interval of more than sixty years from this period of the life of Keats, and at a distance of three thousand miles, more or less, from London, Hampstead, and their neighborhoods where it was passed,—consequently I write at a disadvantage, depending solely upon my books. Lord Houghton's "Life, Letters and Literary Remains" (1848) tells me that Keats scribbled doggerel rhymes among the notes which he took of the medical lectures that he attended, and that he enriched with the same doubtful ore the notes of his fellow students when he obtained possession of them. "Of course, his peculiar tastes did not find much sympathy in that society. Whenever he showed his graver poetry to his companions, it was pretty sure to be ridiculed and severely handled. They were therefore surprised when, on presenting himself for examination at Apothecaries' Hall, he passed his examination with considerable credit. When, however, he entered on the practical part of his business, although successful in all his operations, he found his mind so oppressed during the task with an overwrought apprehension of the possibility of doing harm, that he came to the determined conviction that he was unfit for the line of life on which he had expended so

many years of his study and a considerable part of his property. 'My dexterity,' he said, 'used to seem to me a miracle, and I resolved never to take up a surgical instrument again,' and thus he found himself, on his first entrance into manhood, thrown on the world almost without the means of daily subsistence, but with many friends interested in his fortunes, and with the faith in the future which generally accompanies the highest genius." Clarke states that Keats's profession had been *chosen for him*, and that he made no secret of his dislike to it. "The other day, for instance," he said to Clarke, "during the lecture, there came a sunbeam into the room, and with it a whole troop of creatures floating in the ray, and I was off with them to Oberon and Fairy-land." The sunbeam that came into the life of Keats was his coming to age in his second poetical year, and becoming his own master. When that auspicious October day closed it closed the doors of Apothecaries' Hall and St. Thomas's Hospital, and deprived the disciples and followers of Galen and Hippocrates of an illustrious brother. If Thomas Lovell Beddoes had made the same decision as Keats about ten years later, the nineteenth century would have rivaled the sixteenth with a second and greater Marlowe. Doctor Keats deceased in 1816, and was succeeded—but not in his business—by Keats the poet.

We have two verbal portraits of this beautiful genius at this time, and both by skillful painters,—Leigh Hunt and Benjamin Robert Haydon. "He was under the middle height," says Hunt, "and his lower limbs were small in comparison with the upper, but neat and well turned." (How like the elegant *Libertas* that last touch is!) "His shoulders were very broad for his size; he had a face in which energy and sensibility were remarkably mixed up, an eager power, checked and made patient by ill-health." (But the checked and patient look came later). "Every feature was at once strongly cut and delicately alive. If there was any faulty expression it was in the mouth, which was not without something of a character of pugnacity. The face was rather long than otherwise; the upper lip projected a little over the under; the chin was bold; the cheeks sunken; the eyes mellow and glowing, large, dark and sensitive. At the recital of a noble action or a beautiful thought, they would suffuse with tears, and his mouth trembled." Thus far, his fellow-poet. "He was below the middle size," says Haydon, "with a low

forehead, and an eye that had an inward look, perfectly divine, like a Delphian priestess who saw visions." (Bravo, Haydon!) "I read one or two of his sonnets, and formed a very high idea of his genius. After a short time I liked him so much that a general invitation on my part followed, and we became extremely intimate. He visited my painting-room at all times, and at all times was welcome." One would like to know which one or two of Keats's sonnets it was that led Haydon to form his very high idea of his genius, and one comes to the conclusion—I do, at least—that it was the two which he addressed to him. Lord Houghton speaks of Keats's habit of spending frequently his evenings in Haydon's painting-room, where many men of genius were wont to meet, and, sitting before some picture on which he was engaged, criticise, argue, defend, attack, and quote their favorite writers,—*"making us wings for the night,"* as Keats used to put it. And Haydon himself describes one of these gatherings where an immortal dinner came off (modesty, you see, was Haydon's foible), at which Keats, Wordsworth, Lamb, Leitch Ritchie, and an unfortunate comptroller of stamps were present, and at which—or, to be more exact, at the tea which followed it—Lamb quizzed the poor devil so unmercifully that Keats and Haydon hurried him into the painting-room, shut the door, and gave way to inextinguishable laughter.

I must not write about this, however (you can read it for yourselves in Tom Taylor's "Life of Haydon"), nor about any of the guests at that immortal dinner,—but introduce my readers to an early friend of Keats's whom I could not bring in till now. This was Mr. John Hamilton Reynolds, whose father was head writing-master at Christ's Hospital, and who was residing then with his family in Little Britain. He was a year older than Keats, whom he outlived thirty-one years, and was coming into notice among the young poets of England. Byron mentions him and his first poem in his journal, under the date of February 28th, 1814: "Answered—or rather acknowledged—the receipt of young Reynolds's Poem, *Safie*. The lad is clever, but much of his thoughts are borrowed—*whence*, the reviewers may find out. I hate discouraging a young one; and I think—though wild, and more oriental than he would be, had he seen the scenes where he has placed his Tale—that he has much talent, and, certainly, fire enough."

SOME PRECEPTS FOR SLANDERING SAFELY.

Sam.—Let us take the law of our sides. I will bite my thumb at them.

Abr.—Do you bite your thumb at us, sir?

Sam.—Is the law of our side, if I say ay?

ROMEO AND JULIET.

THE desire to know exactly how much I could say against my neighbors without making myself liable in an action for slander, induced me some time ago to make a collection of legal precedents. For a long time I had felt the need of them—a need, I doubt not, that has been felt by hundreds of others. It is hardly necessary to say that I have found them useful. They have not only proved a very present help in time of trouble, but they have imparted to the character a certain repose and confidence which will prove of rare value in future emergencies.

It is no slight recommendation of these precedents (compiled from adjudged cases in this country and England), that they are applicable as well to cases of libel as of slander. Slander is the malicious uttering of false and defamatory words, tending to the damage of another. It is the *malicious* utterance that makes the slander; so that, if words are spoken in a friendly manner, as by way of advice, admonition, or concern, without any tincture of ill-will, they are not slanderous. Of this character are communications in regard to servants, advice as to dealing with tradesmen, and other statements of a like nature, which are called privileged communications. You will at once perceive, my dear reader, what a field is here opened to the discreet. Hardly a day passes without an opportunity of advising a friend about the church he should or should not attend, the doctor he should employ, the lawyer he should hire, the tradesmen he should patronize, etc., etc., and even about the people with whom he should or should not associate. But in what you say the great point is to avoid the *appearance* of malice. You can do a great deal of damage with the appearance of friendship, if you add a "but," spoken under the breath or with a shrug of the shoulders. Undoubtedly this one precept will be sufficient for ordinary occasions, but there are times when this alone would be weak and jejune, when such small words of heat and passion as "rogue" and "rascal" would be but "so much waste of your strength to no purpose; they are like sparrow-shot fired against a bastion; they serve to stir the

humors, but carry off none of the acrimony." They will not do on momentous occasions, when great interests are at stake and strong passions are excited. Then something more—something stronger is needed.

I have intimated that general terms of abuse, expressive of evil inclinations and corrupt manners, such as "rogue," "rascal," "scoundrel," and the like, are not actionable. And it has been held that the words "swindler" and "cheat" are too general to support an action. (*Chase vs. Whitlock*, 3 Hill, 139.) It has been held in England that the words, "Thou art as very a thief as any in Warwick gaol," none being then in prison, are not actionable, but would have been so had a felon been there at the time. (1 *Bulstrode's Rep.*, p. 40.) And it also has been held that no action lay for the words, "You killed your wife," it not appearing that the wife was dead; and the difference was noted between the two cases—when she was dead and when she was living; for when she is alive no action lies, although the defendant says that the plaintiff has murdered her, but it would be otherwise if she were dead. (4 *Coke*, 9.) This case has been reduced to rhyme, as follows:

"If a person says he killed my wife,
No action lies, if she be yet alive."

It is not slander if the words are heard only by the plaintiff. (*Haile vs. Fuller*, 2 Hun, 519; see also "London Assurance," Act II.) In this last authority, which is written in the form of a dialogue, Cool asks, "What terms are actionable?" to which Meddle answers, "You may call him anything you please, providing there are no witnesses." Meddle states the law correctly, but gives, I think, the wrong reason. The words are not actionable, not because there are no witnesses to prove them, but because, not having been heard by others, they have done no damage.

You can call a man a "blackleg" (3 H. & N., 376); you can say he "got drunk on Christmas" (1 *Miss.*, 324); if you are in South Carolina, you can say he cut off your horse's tail (3 *Rich.*, 242); if in Missouri, "he whipped his wife" (26 *Mo.*, 153), or his

mother (ib., 255); in Pennsylvania you can say, "If he would do that, he would steal." (27 Pa. St., 112.) In Indiana it was held by the Supreme Court that the words, "You hooked my geese," were not actionable in themselves, the court being of the opinion that the usual and ordinary meaning of the word "hook" is not "steal." (*Hays vs. Mitchell*, 7 Blackford, 117.) You can say of an attorney, "He is a Presbyterian" (*T. Jones*, 23); of a farmer, that he "cheated in corn" (id., 156); that "Brown is an enchanter, and did enchant a bull, and make it run mad about the common," no death or bodily harm being specified. (2 Keble, 548.) You can call a woman a witch, because not within any statute law; but you cannot say of one that he is a sacrilegious person, because sacrilege is an offense at common law; but when it appeared that the words were, "You commit sacrilege every day," judgment was not allowed to be entered against the defendant. (2 Keble, 401; id. 430.) It is not actionable to say, "She is a witch, and hath bewitched all that deal with her," the words being too general; but perhaps they would be actionable, if applied to any particular person. (2 Keble, 408; id., 441.) But the words, "You are a witch, and I will hang you for it, if you vex me," adding, "She hath imps," are actionable, for the words imply an offense at common law, and so felony; but Twisden, who was one of the judges, doubted. (2 Keble, 430, pl. 61.)

While it is actionable to call a man a thief, it is not actionable if you add the words, "Because he has stolen a cat," the stealing of a cat not being felony; and Judge Twisden said (2 Keble, 377) that "thieving rogue" was actionable, but "thievish rogue" was not, because it implieth but a bare inclination. Stevenson said of Higgins that he was a "knave, and a sitting knave, and had received stolen goods," and the court held the words not actionable, because it was not averred that Higgins knew them to be stolen goods, and Twisden said that even then the action would not lie (2 Keble, 338); it is not actionable to say, "He is a drunken rogue," "A cheating knave" (2 Keble, 336); but it is actionable to say a man cheats in his trade; or to say, "You are a thieving rogue and get your living by pilfering and stealing;" for these words imply a habit and a trade of thieving (2 Keble, 440); you can say of your neighbor, "He seeks to take my life," and no action will lie, for he may seek your life lawfully upon just cause; and also the words

are too general, and for seeking alone no punishment is inflicted by the law. (4 Coke, 5.)

No action lies for saying, "He is in Warwick gaol for stealing a horse and other beasts," because it is not directly affirmed that he had stolen them, but it is only a report of his imprisonment and the supposed reason therefor. But the words, "He stole them and was in gaol for it," are actionable. (*Hobart Rep.*, 239.)

It is not actionable to charge one with the intent to commit an unlawful act.

You cannot say of a person that he has an infectious disease without laying yourself liable, but you can with safety say that he has had an infectious disease. In Vermont, the following words were held not actionable: "It is a pity Montpelier should be represented by a man who snaked his mother out-of-doors by the hair of her head. It was the day before she died." (7 Verm., 439.) It has been held in Massachusetts, that a charge of "plundering a library," would not of itself be slanderous, because, though it conveys the notion of a wrongful acquisition, it does not express the nature of the wrong done. (*Carter vs. Andrews*, 16 Pickering, 1.)

Words which are harmless when spoken of an ordinary individual are scandalous when spoken of a peer of England—thus, to say of a peer, "He is no more to be valued than a dog," is scandal, yet you can call an archbishop a covetous man (4 Henry 8, Rot., 649), and can say of him, "He hath no more conscience than a dog;" but, in England, an indictment will lie for saying, "It's a good world where beggarly priests are made lords," this being a public scandal. (2 Keble, 336.) You can call a clergyman a dunce, blockhead, or fool, for it does not injure him in his profession. The court held that one can be a good parson and a great fool, but otherwise of an attorney. It has been adjudged that to call a justice of the peace blockhead, ass, etc., is not a slander for which an action will lie, because—note the distinction—he was not accused of any corruption in his employment, or any ill-design or principle; "And it was not his fault," said the court, "that he was a blockhead, ass, etc.; for he cannot be otherwise than his Maker made him; but, if he had been a wise man, and wicked principles were charged upon him when he had them not, an action would have lain; for, though a man cannot be wiser, he may be honester than he is." (*Holt*, 653.)

You cannot say of a churchwarden, "He diverted himself on Sunday, when he ought to be in the house of God," for these words charge a breach of duty. (*Moore vs. Bloxham*, Irish Term Rep., 91.) If you are a church member, however, you can in the course of religious discipline, speak words concerning a church member, that would under other circumstances, be actionable. And this too without telling him privately his fault. Thus you can say, "He has committed forgery." (*Jarvis vs. Hathaway*, 3 John., 179.) Neither are the words, "Squire O. is a rogue," actionable, if it does not appear that they were spoken of him in his official capacity. (1 Johns., Cases, 129.)

It was held no slander to say, "The justices of the peace do not understand more than this jug the statute of excise, except Mr. Hunt, nor have nothing to do with it, and the said Hunt understands but part, nor one in twenty the parliament men that made it." (2 Keble, 494.) On this case you might risk it to say of a member of your legislature that he did not understand the laws that he had made, and this, even though you could not justify.

It may happen to you sometime to be a party to an action; if you are successful, that of itself will be sufficient; if you are defeated, it undoubtedly will be because your opponent and his witnesses have sworn falsely. If you are so incautious as to call them "perjurers," you will lay yourself liable to another action, but you can say they are "forsworn," that "they have sworn falsely," that "they have taken a false oath," or, "have sworn to a lie," without incurring any liability, and most of those that hear you will not notice the difference between these sayings and the word "perjurers." There are some decisions that hold that you can call a man a perjurer, if at the same time you give a reason for so doing—and this reason impute not felony—thus, you can say, "Mr. B. is a perjured old knave, and that is to be proved by a stake parting the lands of N. and W.;" for, it is as much as to say, "Thou art a perjured knave, but none in the world can prove it," which will not bear an action. So it is in this case, the proof of the perjury being referred to a stake, which is a thing insensible, and incapable of producing any proof. (*Yelverton*, 10.) There once lived in this state a man who knew his right to slander and availed himself of it. He boldly said: "Morgan swore to a lie, but, I am not liable, because I have not said in what

suit he testified," and the court held the words not actionable. (*Lalor*, 263.)

If your opponent, or any one in his behalf, has made an affidavit, you can in your affidavit say that he has committed "perjury," or "rank perjury." (2 Sandf., 195.) When you are on the witness-stand testifying, you can voluntarily, for your own purpose, and even maliciously, defame your adversary and his witnesses in any manner that your ingenuity and malice can suggest; in other words, a witness is not responsible in a civil action for any reflection on another made while giving evidence, and this even though done after his examination is finished, but before leaving the stand. Let me caution you, however, to beware of the judge, for if you go too far he may commit you for contempt. It would be well, perhaps, before going upon the witness-stand, to instruct your lawyer to ask you such questions that, in answering them, you can avail yourself of your privilege as a witness to gratify any malice that you may have against your opponent, or any of his witnesses.

Jones once said to three men who had given evidence against him, "One of you is perjured;" and upon an action brought by one of them, it was adjudged that no action lay; but this is doubtful law in this state.

If you are beaten in this action, and think it was owing to your attorney's want of skill, you can say that he acted like a fool in that particular case; but to say of a stock-broker, "He is a lame duck," is actionable. In talking of an attorney and his skill in his profession, you cannot say, "He cannot read a complaint;" and having said it, the court will not suppose that the attorney is ill-sighted, or that the complaint is ill-written, but will suppose that the words were intended of any complaint. (2 Keble, 710.) Perhaps you might risk saying it if you should carefully leave out any reference to the attorney's profession, for the court allowed Richardson to say of King, "He is a cheating rogue and a cheating knave;" it not appearing there was any special reference to King's office; the court thus holding that that was the gist of the action, and must be proved in evidence. (2 Keble, 265.) Yet the court held in the case of *Baker vs. Morphew*, 2 Keble, 202, that the words, "Morphew hath no more judgment in the law than Master Cheyny's bull," spoken of an attorney while talking about his profession, were actionable, although it was not averred

that Cheyny had a bull, for the scandal is greater if he hath none. It is true the court was divided,—Chief Justice Keeling holding on Fermor's case, that no action lay, but the other three judges were against him, and held that this is as much as to say he had no judgment at all, which is as well a scandal to an attorney as to a counselor. It is actionable to call a lawyer a "daffowndilly," if there be an averment that the words signify an ambidexter (Pearce's case, Cro. Car., 382); to say he has "no more law than a goose," is actionable, but it was doubted whether the words, "He hath no more law than the man in the moon," were actionable.

You can say of a lawyer, "He has as much law as a monkey," because he hath as much, and more also. But if you say, "He hath no more law than a goose," then are those words actionable. You can say, "He is a common barrator, and deserves to be hanged," for the words, "He deserves to be hanged," are too general and extravagant to found an action on; because it was not shown what act was done to deserve hanging. (Yelverton, 90.) The words, "Honest lawyer," spoken ironically of an attorney, were held actionable. (Boydell vs. Jones, 4 Mees & Wels., 446.) No action will lie for the words, "He is a great rogue, and deserves to be hanged as well as Gale, who was condemned for stealing at Newgate. He bade J. S. steal what goods he could, and he would receive them," for by the first words the defendant only expressed his opinion, and perhaps he did not think Gale deserved to be hanged; the other words were but bad counsel, and no act was done. (T. Jones, 157.) You can also say, "A. made a note, and when asked for payment got the holder to wait, and when he sued, A. plead the Statute of Limitations, and got off scot free." (4 Sandf., 60.)

The words, "Brown is no gentleman, but is descended from Brown the great pudding-eater in Kent," were held actionable in England, it appearing he was not so descended, but from an ancient family.

You cannot say of your butcher, "He has *nothing* but rotten meat in his shop," but you can say, "He has rotten meat in his shop," for the reason that such words would not tend to his prejudice in his trade, for he might well have rotten meat in his shop and good meat also. (12 Mod., 420.)

The words, "Go, fetch the candles that thou stolest from my Lady Chandoy's," were held actionable (2 Keble, 654); and I

remember an unreported case in Oneida County, New York, where the words, "I never stole a log-chain. Did you?" were held slanderous. But it has been held in England that the following words were not actionable: "Bear witness, mistress, that he hath stolen my hair-cloth." The court held that the plaintiff should take nothing by his complaint; for it is no direct affirmation to charge him with the stealing of it, no more than if he should say, "Mistress, you will bear witness that he hath stolen my horse," for thereby the party who speaks does not slander the other, but leaves it to the testimony of others for the proof of it, as if he should say, "J. S. will prove you stole my horse;" these words will not maintain an action. (Yelverton, 126.)

"Thou art a rogue, and receivest stolen mutton from Bess Gamble; she stole it, and you were a partner with her," which Saunders, who was of counsel for the defendant, said, in arrest of judgment, was not actionable, "partner" being an uncertain word, was yet regarded as such by the court, who held that this must be intended partners in guilt, and gave judgment for the plaintiff. (2 Keble, 494.) The words, "We would suggest to the ex-Duke of Brunswick the propriety of withdrawing into his own *natural* and sinister obscurity," were held not libelous. (2 Car & Ker, 10.) But in another case the court took judicial notice of the meaning of the words, "They had realized the fable of the frozen snake," and held them slanderous. (12 Queen's Bench Rep., 625.)

You can say of the postmaster, "He has broken open my letters in the post-office," without danger (17 N. J. L., 12); in Alabama these words do not involve the idea of moral turpitude, or render him infamous. (2 Stew. & P., 395.) In South Carolina and Tennessee the words, "Those two rascals killed my hogs, and converted them to their own use," are not actionable. (2 Brev., 480, Sneed, 79.) If you are in Minnesota, you can say, "He robbed the town of St. Cloud," or any other town; or, "He is a public robber," without being liable, for the courts there hold that the crime of robbery cannot be committed against a town. (12 Minn., 494.)

Generally, it is dangerous for a man to quarrel with his physician, but such quarrels sometimes do happen, and it then becomes necessary to consider what can be said of him without being made to pay for the pleasure. Of course you understand that you can call him a "bad man," a "rogue," a

"scoundrel," and many, if not all, of the names mentioned above. I caution you not to say anything against his professional skill, unless, like Meddle in the play, you put by a small weekly stipendium until you can afford it. You can say to his brother doctors that he has met homeopaths in consultation (9 Jurist N. S., 580), and that will injure him very much, if he belongs to the regular school. You can also say, "He was the cause of such a one's death," because "a physician may be the cause of a man's death," said Lord Mansfield, in *Peake vs. Oldham*, Cowp. 275, "and very innocently," and this remark would in reality reflect upon his skill. But you cannot say, "He hath small practice and is very unfortunate in his way, and there are few sick but die under his hands." (2 Keble, 489.) You can say of him, "He is not a physician, but a two-penny bleeder," and can insinuate that he is not a graduate of a regular medical school. (*Foster vs. Small*, 3 Wharton, 138-142.)

Let me advise you, if you should be sued for slander, to swear as a witness in your own behalf that you believed what you said to be true. If you have carefully avoided the appearance of malice, as I advised you to do, this evidence, if it does not succeed in establishing a complete defense in your behalf, will serve to reduce the amount of damages to such an extent that you will feel you have had the full worth of your money. "In these cases," saith my Lord Coke, "you may see many excellent points of learning in actions for slander, to observe well the occasion and cause of speaking of them, and how it may be pleaded in the defendants' excuse."

Do not let any unmanly fear of what the world may think or say of you prevent or hinder you from doing your duty. What if there be an unjust prejudice against slander? Many of the most eminent men of antiquity were slanderers—Demosthenes, Cicero, Martin Luther and a host of others. The writings of these men, either in the original or in good translations, should be studied for the purpose of increasing your vocabulary. Then, too, a great part of the disgrace attending slander is because of its supposed secretiveness. These precepts will teach you that you need no longer confine to the closet what you have perhaps for years been desiring to proclaim from the house-top.

Fear not to use these precepts because they are not derived solely from the deci-

sions of the courts of this country. Although some of them are based on the decision of the English courts, yet these decisions (says Chancellor Kent) are the best evidence of the common law of England, which has been recognized and adopted, as one entire system, by the constitutions of Massachusetts, New York, New Jersey, and Maryland, and has been assumed by the courts of justice, or declared by statute, as the law of the land in every state in the Union.*

It may seem at the first reading that I have endeavored to injure my profession by extending among the laity a knowledge of the law of slander; but a careful examination of what I have written will convince any lawyer that such is not the case,—that in reality these rules, if acted upon, will be the source of as much new litigation as any "Every Man his own Lawyer" ever printed. I shall thus have made two lawsuits grow where there was one before, and shall have deserved well of the profession. For, my dear brothers, if we can once get a hot-tempered man started on these non-actionable words, ten to one he will forget himself and run over into those that are actionable; or he will so exasperate his opponent that *he* will either commit an assault (and then we shall have an action for assault and battery), or will use words that are actionable and so make himself liable to an action for slander; or better yet, will both slander and assault, and then there will be a multiplicity of actions.

* I once heard a lawyer from Massachusetts relate a curious instance of the authority of the common law in his state. He said that he once advised a client, who had the reputation of being a fighting man, to plead the right of wager of battle. Now, wager of battle is a trial by combat, and was formerly allowed by the common law. By it the defendant had the right to fight with the plaintiff, the result of the conflict proving whether he was guilty or innocent. My friend argued to the court that the common law, as it was at the Revolution, had been adopted in Massachusetts, and that when adopted, a defendant in England had the legal right to wage his battle, and the law never having been abolished by statute in Massachusetts the defendant still had that right, although the law had been abolished in England. The court held the plea a good one. I have examined the Massachusetts Digest, but I find no reported case to the above effect. Perhaps the story is mythical. It may have been suggested by the celebrated case of *Ashford vs. Thornton*, 1 Barn. & Ald. 405, decided in 1818 in England. In this case the defendant did plead his right to wage battle, and the court allowed it. This case called the attention of Parliament to the fact that this anomaly—this relic of another age—was still a part of the common law of England, and the next year it was abolished.

LOST.

THE 25th of May, 1866, was no doubt to many a quite indifferent date, but to two persons it was the saddest day of their lives. Charles Randall that day left Bonn, Germany, to catch the steamer home to America, and Ida Werner was left with a mountain of grief on her gentle bosom, which must be melted away drop by drop, in tears, before she could breathe freely again.

A year before, Randall, hunting for apartments, his last term at the university just begun, had seen the announcement, "*Zimmer zu vermieten*," in the hall below the flat where the Werners lived. Ida answered his ring, for her father was still at his government office, and her mother had gone out to the market to buy the supper. She would much rather her mother had been at home to show the gentleman the rooms; but knowing that they could not afford to lose a chance to rent them, she plucked up courage, and, candle in hand, showed him through the suite. When he came next day with his baggage he learned for the first time what manner of apartments he had engaged; for although he had protracted the investigation the previous evening to the furthest corner, and had been most exacting as to explanations, he had really rented the rooms entirely on account of a certain light in which a set of Madonna features, in auburn hair, had shown at the first opening of the door.

A year had passed since this, and a week ago a letter from home had stated that his father, indignant at his unexplained stay six months beyond the end of his course, had sent him one last remittance, barely sufficient for a steamer ticket, with the intimation that if he did not return on a set day he must thenceforth attend to his own exchequer. The 25th was the last day on which he could leave Bonn to catch the requisite steamer. Had it been in November, nature at least would have sympathized; it was cruel that their autumn time of separation should fall in the spring, when the sky is full of bounteous promise and the earth of blissful trust.

Love is so improvident that a parting a year away is no more feared than death, and a month's end seems dim and distant. But a week—a week only—that even to love is short, and the beginning of the end. The chilling mist that rose from the gulf of separation

so near before them, overshadowed all the brief remnant of their path. They were constantly together. But a silence had come upon them. Never had words seemed idler, they had so much to say. They could say nothing that did not mock the weight on their hearts, and seem trivial and impertinent because it was exclusive of more important matter. The utmost they could do was to lay their hearts open toward each other to receive every least impression of voice, and look, and manner, to be remembered afterward. At evening they went into the minster church, and sitting in the shadows listened to the sweet shrill choir of boys whose music distilled the honey of sorrow, and as the deep bass organ chords gripped their hearts with the tones that underlie all weal and woe, they looked in each other's eyes and did for a space feel so near that all the separation that could come after seemed but a trifling thing.

It was all arranged between them. He was to earn money, or get a position in business, and return in a year or two at most and bring her to America.

"Oh," she said once, "if I could but sleep till thou comest again to wake me, how blessed I should be; but, alas, I must wake all through the desolate time!"

Although for the most part she comforted him rather than he her, yet at times she gave way, and once suddenly turned to him and hid her face on his breast, and said, trembling with tearless sobs:

"I know I shall never see thee more, Karl. Thou wilt forget me in thy great far land and wilt love another. My heart tells me so."

And then she raised her head and her streaming eyes blazed with anger.

"I will hover about thee, and if thou lovest another I will kill her as she sleeps by thy side."

And the woman must have loved him much, who, after seeing that look of hers, would have married him. But a moment after she was listening with abject ear to his promises.

The day came at last. He was to leave at three o'clock. After the noontide meal Ida's mother sat with them and they talked a little about America, Frau Werner exerting herself to give a cheerful tone to the conversation, and Randall answering her questions

absently and without taking his eyes off Ida, who felt herself beginning to be seized with a nervous trembling. At last Frau Werner rose and silently left the room, looking back at them as she closed the door with eyes full of tears. Then as if by a common impulse they rose and put their arms about each other's necks, and their lips met in a long shuddering kiss. The breath came quicker and quicker; sobs broke the kisses; tears poured down and made them salt and bitter as parting kisses should be in which sweetness is mockery. Hitherto they had controlled their feelings, or rather she had controlled him; but it was no use any longer, for the time had come, and they abandoned themselves to the terrible voluptuousness of unrestrained grief, in which there is a strange meaningless suggestion of power, as though it might possibly be a force that could affect or remove its own cause if but wild and strong enough.

"Herr Randall, the carriage waits and you will lose the train," said Frau Werner from the door, in a husky voice.

"I will not go, by God!" he swore, as he felt her clasp convulsively strengthen at the summons. The lesser must yield to the greater, and no loss or gain on earth was worth the grief upon her face. His father might disinherit him; America might sink, but she must smile again. And she did,—brave, true girl and lover. The devotion his resolute words proved was like a strong nerve to restore her self-control. She smiled as well as her trembling lips would let her, and said, as she loosed him from her arms:

"No, thou must go, Karl. But thou wilt return, *nicht wahr?*"

I would not venture to say how many times he rushed to the door, and glancing back at her as she stood there desolate, followed his glance once more to her side. Finally, Frau Werner led him as one dazed to the carriage, and the impatient driver drove off at full speed.

It is seven years later, and Randall is pacing the deck of an ocean steamer, outward bound from New York. It is the evening of the first day out. Here and there passengers are leaning over the bulwarks pensively regarding the sinking sun as it sets for the first time between them and their native land, or may be taking in with awed faces the wonder of the deep, which has haunted their imaginations from childhood. Others are already busily striking up acquaintances with fellow-passengers, and a

bridal pair over yonder sit thrilling with the sense of isolation from the world that so emphasizes their mutual dependence and all-importance to each other. And other groups are talking business and referring to money and markets in New York, London and Frankfort as glibly as if they were on land, much to the secret shock of certain raw tourists, who marvel at the insensitiveness of men who, thus speeding between two worlds, and freshly in the presence of the most august and awful form of nature, can keep their minds so steadily fixed upon cash-books and ledgers.

But Randall, as, with the habit of an old voyager, he already falls to pacing the deck, is too much engrossed with his own thoughts to pay much heed to these things. Only, as he passes a group of Germans, and the familiar accents of the sweet, homely tongue fall on his ear, he pauses, and lingers near.

The darkness gathers, the breeze freshens, the waves come tumbling out of the east, and the motion of the ship increases as she rears upward to meet them. The groups on deck are thinning out fast as the passengers go below to enjoy the fearsome novelty of the first night at sea, and to compose themselves to sleep as it were in the hollow of God's hand. But long into the night, Randall's cigar still marks his pacing up and down as he ponders, with alternations of tender, hopeful glow and sad foreboding the chances of his quest. Will he find her?

It is necessary to go back a little. When Randall reached America on his return from Germany, he immediately began to sow his wild oats, and gave his whole mind to it. Answering Ida's letters got to be a bore, and he gradually ceased doing it. Then came a few sad reproaches from her, and their correspondence ceased. Meanwhile, having had his youthful fling, he settled down as a steady young man of business. One day he was surprised to observe that he had of late insensibly fallen into the habit of thinking a good deal in a pensive sort of way about Ida and those German days. The notion occurred to him that he would hunt up her picture, which he hadn't thought of in five years. With misty eyes and crowding memories he pored over it, and a wave of regretful, yearning tenderness filled his breast.

Late one night after long search he found among his papers a bundle of her old letters already growing yellow. Being exceedingly rusty in his German, he had to study them out word by word. That night, till

the sky grew gray in the east, he sat there turning the pages of the dictionary with wet eyes and glowing face, and selecting definitions by the test of the heart. He found that some of these letters he had never before taken the pains to read through. In the bitterness of his indignation, he cursed the fool who had thrown away a love so loyal and priceless.

All this time he had been thinking of Ida as if dead, so far off in another world did those days seem. It was with extraordinary effect that the idea finally flashed upon him that she was probably alive and now in the prime of her beauty. After a period of feverish and impassioned excitement, he wrote a letter full of wild regret and beseeching, and an ineffable tenderness. Then he waited. After a long time it came back from the German dead-letter office. There was no person of the name at the address. She had left Bonn, then. Hastily setting his affairs in order, he sailed for Germany on the next steamer.

The incidents of the voyage were a blank in his mind. On reaching Bonn, he went straight from the station to the old house in — strasse. As he turned into it from the scarcely less familiar streets leading thither, and noted each accustomed landmark, he seemed to have just returned to tea from an afternoon lecture at the university. In every feature of the street some memory lurked, and as he passed threw out delaying tendrils, clutching at his heart. Rudely he broke away, hastening on to that house near the end of the street, in each of whose quaint windows fancy framed the longed-for face. She was not there, he knew, but for a while he stood on the other side the street, unmindful of the stares and jostling of the passers-by, gazing at the house-front, and letting himself imagine from moment to moment that her figure might flit across some window, or issue from the door, basket in hand, for the evening marketing, on which journey he had so often accompanied her. At length, crossing the street, he inquired for the Werner family. The present tenants had never heard the name. Perhaps the tenants from whom they had received the house might be better informed. Where were they? They had moved to Cologne. He next went to the Bonn police-office, and from the records kept there, in which pretty much everything about every citizen is set down, ascertained that several years previous Herr Werner had died of apoplexy, and that no one of the

name was now resident in the city. Next day he went to Cologne, hunted up the former tenants of the house, and found that they remembered quite distinctly the Werner family, and the death of the father, and only bread-winner. It had left the mother and daughter quite without resources, as Randall had known must probably have been the case. His informants had heard that they had gone to Düsseldorf.

His search had become a fever. After waiting seven years, a delay of ten minutes was unendurable. The trains seemed to creep. And yet, on reaching Cologne, he did not at once go about his search, but said to himself:

"Let me not risk the killing of my last hope till I have warmed myself with it one more night, for to-morrow there may be no more warmth in it."

He went to a hotel, ordered a room and a bottle of wine, and sat over it all night, indulging the belief that he would find her the next day. He denied his imagination nothing, but conjured up before his mind's eye the lovely vision of her fairest hour, complete even to the turn of the neck, the ribbon in the hair, and the light in the blue eyes. So he would turn into the street. Yes, here was the number. Then he rings the bell. She comes to the door. She regards him a moment indifferently. Then amazed recognition, love, happiness, transfigure her face. "Ida!" "Karl!" and he clasps her sobbing to his bosom, from which she shall never be sundered again.

The result of his search next day was the discovery that mother and daughter had been at Düsseldorf until about four years previous, where the mother had died of consumption, and the daughter had removed, leaving no address. The lodgings occupied by them were of a wretched character, showing that their circumstances must have been very much reduced.

There was now no further clew to guide his search. It was destined that the last he was to know of her should be that she was thrown on the tender mercies of the world,—her last friend gone, her last penny expended. She was buried out of his sight, not in the peaceful grave, with its tender associations, but buried alive in the living world; hopelessly hid in the huge, writhing confusion of humanity. He lingered in the folly of despair about those sordid lodgings in Düsseldorf as one might circle vainly about the spot in the ocean where some pearl of great price had fallen overboard.

After a while, he roused again, and began putting advertisements for Ida in the principal newspapers of Germany, and making random visits to towns all about to consult directories and police records. A singular sort of misanthropy possessed him. He cursed the multitude of towns and villages that reduced the chances in his favor to so small a thing. He cursed the teeming throngs of men, women and children, in whose mass she was lost, as a jewel in a mountain of rubbish. Had he possessed the power, he would in those days, without an instant's hesitation, have swept the bewildering, obstructing millions of Germany out of existence, as the miner washes away the earth to bring to light the grain of gold in his pan. He must have scanned a million women's faces in that weary search, and the bitterness of that million-fold disappointment left its trace in a feeling of aversion for the feminine countenance and figure that he was long in overcoming.

Knowing that only by some desperate chance he could hope to meet her in his random wanderings, it seemed to him that he was more likely to be successful by resigning as far as possible all volition, and leaving the guidance of the search to chance; as if fortune were best disposed toward those who most entirely abdicated intelligence and trusted themselves to her. He sacredly followed every impulse, never making up his mind an hour before at what station he should leave the cars, and turning to the right or left in his wanderings through the streets of cities, as much as possible without intellectual choice. Sometimes, waking suddenly in the middle of the night, he would rise, dress with eager haste, and sally out to wander through the dark streets, thinking he might be led of Providence to meet her. And once out, nothing but utter exhaustion could drive him back; for, how could he tell but in the moment after he had gone, she might pass. He had recourse to every superstition of sortilege, clairvoyance, presentiment, and dreams. And all the time his desperation was singularly akin to hope. He dared revile no seeming failure, not knowing but just that was the necessary link in the chain of accidents destined to bring him face to face with her. The darkest hour might usher in the sunburst. The possibility that this was at last the blessed chance lit up his eyes ten thousand times as they fell on some new face.

But at last he found himself back in Bonn, with the feverish infatuation of the

gambler which had succeeded hope in his mind, succeeded in turn by utter despair! His sole occupation now was revisiting the spots which he had frequented with her in that happy year. As one who has lost a princely fortune sits down at length to enumerate the little items of property that happens to be attached to his person, disregarded before but now his all, so Randall counted up like a miser the little store of memories that were thenceforth to be his all. Wonderfully the smallest details of those days came back to him. The very seats they sat in at public places, the shops they entered together, their promenades and the pausing-places on them, revived in memory under a concentrated inward gaze like invisible paintings brought over heat.

One afternoon, after wandering about the city for some hours, he turned into a park to rest. As he approached his usual bench, sacred to him because Ida and he in the old days had often sat there, he was annoyed to see it already occupied by a pleasant-faced, matronly looking German woman, who was complacently listening to the chatter of a couple of small children. Randall threw himself upon the unoccupied end of the bench, rather hoping that his gloomy and preoccupied air might cause them to depart and leave him to his melancholy reverie. And, indeed, it was not long before the children stopped their play and gathered timidly about their mother, and soon after the bench tilted slightly as she relieved it of her substantial charms, saying in a cheery, pleasant voice:

"Come, little ones, the father will be at home before us."

It was a secluded part of the garden, and the plentiful color left her cheeks as the odd gentleman at the other end of the bench turned with a great start at the sound of her voice, and transfixed her with a questioning look. But in a moment he said:

"Pardon me, madame, a thousand times. The sound of your voice so reminded me of a friend I have lost, that I looked up involuntarily."

The woman responded with good-natured assurances that he had not at all alarmed her. Meanwhile, Randall had an opportunity to notice that in spite of the thick-waisted and generally matronly figure, there were, now he came to look closely, several rather marked resemblances to Ida. The eyes were of the same blue tint, though about half as large, the cheeks being twice as full. In spite of the ugly style of dress-

ing it, he saw also that the hair was like Ida's, and as for the nose, that feature which changes least, it might have been taken out of Ida's own face. As may be supposed, he was thoroughly disgusted to be reminded of that sweet girlish vision by this broadly molded, comfortable-looking matron. His romantic mood was scattered for that evening at least, and he knew he shouldn't get the prosaic suggestions of the unfortunate resemblance out of his mind for a week at least. It would torment him as a humorous association spoils a sacred hymn.

He bowed with rather an ill grace, and was about to retire, when a certain peculiar turn of the neck as the lady acknowledged his salute, caught his eye and turned him to stone. Good God! this woman was Ida!

He stood there in a condition of mental paralysis. The whole fabric of his thinking and feeling for months of intense emotional experience had instantly been annihilated, and he was left in the midst of a great void in his consciousness out of touching-reach of anything. There was no sharp pang, but just a bewildered numbness. A few filaments only of the romantic feeling for Ida that filled his mind a moment before still lingered, floating about it, unattached to anything, like vague neuralgic feelings in an amputated stump, as if to remind him of what had been there.

All this was as instantaneous as a galvanic shock the moment he had recognized,—let us not say Ida, but this evidence that she was no more. It occurred to him that the woman, who stood staring, was in common politeness entitled to some explanation. He was in just that state of mind when the only serious interest having suddenly dropped out of the life, the minor conventionalities loom up as peculiarly important and obligatory.

"You were *Fraülein* Ida Werner, and lived at No. ——— strasse in 1866, *nicht wahr?*"

He spoke in a cold, dead tone, as if making a necessary, but distasteful, explanation to a stranger.

"Yes, truly," replied the woman, curiously; "but my name is now *Frau Stein*," glancing at the children, who had been staring open-mouthed at the queer man.

"Do you remember Karl Randall? I am he."

The most formal of old acquaintances could hardly have recalled himself in a more indifferent manner.

"*Herr Gott im Himmel!*" exclaimed the

woman with the liveliest surprise and interest. "Karl! Is it possible. Yes, now I recognize you. Surely! surely!"

She clapped one hand to her bosom, and dropped on the bench to recover herself. Fleshy people, overcome by agitation, are rather disagreeable objects. Randall stood looking at her with a singular expression of aversion on his listless face. But, after panting a few times, the woman recovered her vivacity and began to ply him vigorously with exclamations and questions, beaming the while with delighted interest. He answered her like a school-boy, too destitute of presence of mind to do otherwise than to yield passively to her impulse. But he made no inquiries whatever of her, and did not distantly allude to the reason of his presence in Germany. As he stood there looking at her, the real facts about that matter struck him as so absurd and incredible, that he couldn't believe them himself.

Pretty soon he observed that she was becoming a little conscious in her air, and giving a slightly sentimental turn to the conversation. It was not for some time that he saw her drift, so utterly without connection in his mind were Ida and this comfortable matron before him, and when he did, a smile at the exquisite absurdity of the thing barely twitched the corners of his mouth, and ended in a sad, puzzled stare that rather put the other out of countenance.

But the children had now for some time been whimpering for supper and home, and at length *Frau Stein* rose, and, with an urgent request that Randall should call on her and see her husband, bade him a cordial adieu. He stood there watching her out of sight with an unconscious smile of the most refined and subtle cynicism. Then he sat down and stared vacantly at the close-cropped grass on the opposite side of the path. By what handle should he lay hold of his thoughts?

That woman could not retroact and touch the memory of Ida. That dear vision remained intact. He drew forth his locket and opening it gazed passionately at the fair girlish face, now so hopelessly passed away. By that blessed picture he could hold her and defy the woman. Remembering that fat, jolly, comfortable matron, he should not at least ever again have to reproach himself with his cruel treatment of Ida. And yet why not? What had the woman to do with her? She had suffered as much as if the woman had not forgotten it all. His reckoning was with Ida—was

with her. Where should he find her? In what limbo could he imagine her? Ah, that was the wildering cruelty of it. She was not this woman, nor was she dead in any conceivable natural way so that her girlish spirit might have remained eternally fixed. She was nothing. She was nowhere. She only existed in this locket and her only soul was in his heart, far more surely than in this woman who had forgotten her.

Death was a hopeful, cheerful state compared to that nameless nothingness that was her portion. For had she been dead he could still have loved her soul; but now she had none. The soul that once she had, and if she had then died, might have kept, had been forfeited by living on and had passed to this woman, and would from her pass on further till finally fixed and vested in the decrepitude of age by death. So then it was death and not life that secured the soul, and his sweet Ida had none because she had not died in time. Ah! had not he heard somewhere that the soul is immortal and never dies? Where then was Ida's? She had disappeared utterly out of the universe. She had been transformed, destroyed, swallowed up in this woman, a living sepulcher, more cruel than the grave, for it devoured the soul as well as the body. Pah! this prating about immortality was absurd, convicted of meaninglessness before a tragedy like this; for what was an immortality worth that was given to her last decrepit phase of life, after all its beauty and strength and loveliness had passed soulless away? To be aught but a mockery immortality must be as manifold as the manifold phases of life. Since life devours

so many souls, why suppose death will spare the last one?

But he would contend with destiny. Painters should multiply the face in his locket. He would immortalize her in a poem. He would constantly keep the lamp trimmed and burning before her shrine in his heart. She should live in spite of the woman.

But he could now never make amends to her for the suffering his cruel, neglectful youth had caused her. He had scarcely realized before how much the longing to make good that wrong had influenced his quest of her. Tears of remorse for an unatoneable crime gathered in his eyes. He might indeed enrich this woman, or educate her children, or pension her husband; but that would be no atonement to Ida.

And then as if to intensify that remorse by showing still more clearly the impossibility of atonement, it flashed on him that he who loved Ida was not the one to atone for an offense of which he would be incapable, which had been committed by one who despised her love. Justice was a meaningless word, and amends were never possible, nor can men ever make atonement; for, ere the debt is paid, the atonement made, one who is not the sufferer stands to receive it, while, on the other hand, the one who atones is not the offender, but one who comes after him, loathing his offense and himself incapable of it. The dead must bury their dead. And thus pondering from personal to general thoughts, the turmoil of his feelings gradually calmed and a restful melancholy, vague and tender, filled the aching void in his heart.

DICKENS.

As one who flings large hospitable doors
Wide to a world of masquers whom he has bade
Sweep hurrying onward with their paces mad
And merrily flood his vacant chamber-floors,
Even so with him about whose form in scores
Humanity's eager passions, blithe or sad,
Rush reveling, and however strangely clad,
Are still the old rascals, bigots, fools and bores!
Ah, what a riotous witch-dance they prolong,
Of avarice, hatred, hope, revenge, despair!
How right flies timorous from the clutch of wrong!
How pleasure and ease take hands with toil and care!
While humor, that wild harlequin, here and there,
Dashes in spangled somersaults through the throng!

AMERICAN OYSTER CULTURE.

It is doubtful whether the three species which naturalists have distinguished among the oysters of our Atlantic coast have more than a nominal existence. The oyster is so affected by the conditions of its life that the progeny of a single parent may represent at maturity the most widely variant forms of oyster-growth. The nature of the substance on which an oyster is fixed, the consistency of the bed in which it rests, the depth, temperature and saltness of the water it lives in; every circumstance of its environment, in fact, is reflected in its shape and size, in the character of its shell, and in the flavor of its meat. An oyster which begins its settled existence on a scallop-shell will carry through life the impress of its first resting-place; and the general form of the oyster is as subject to the accidents of place and surroundings as are the markings of its shell. Left to crowd one another on an irregular surface, oysters grow crooked and unshapely. Planted on soft mud, into which they sink with increasing weight, they build their shells almost entirely on the forward edge, becoming thin-shelled and narrow; and if left long enough to struggle against impending suffocation, their length will be five or six times their breadth, and their meat a mere ribbon of fringed integument. On a gravelly bottom in a swift current, the same stock grow deep and broad and massive; and, with abundant growing space, develop the oval form, the large and solid

as hard and translucent as porcelain. Thus oysters differing enormously in form and character may be not only of the same



KEGGING OYSTERS.

species, but offspring of the same parent, the duration of the infant oyster's free existence being sufficient to allow the members of the same brood to be distributed over

every variety of sea-bottom suitable for oyster life. It is true that the southern oysters are markedly different from those prevailing between New York Bay and Cape Cod, and these from the still more northern variety; but the variations would seem to be easily accounted for by differences in temperature and other external conditions.



OPENING OYSTERS.

meat characteristic of the typical northern oyster. On one ground the shells will be soft and heavy, on another thin, fine, and

VOL. XV.—15.

Northern oysters transplanted into Virginia waters* speedily assume the form and other nominally "specific" features of the natives

of that region. In like manner, the southern oysters when brought to the north become (when they can endure the climate) the rivals of the northern natives in firmness of flesh and depth of body. As a rule, however, they do not maintain themselves more than a single season in the colder northern waters; nor do they bear transportation to Europe or to California so well as the oysters of the north.

As for comparative merit, that is a matter which rivals the oyster itself in delicacy. In Washington or Baltimore, the oyster dealer will generously admit that it is quite possible to find good oysters outside of Chesapeake Bay; but for a "perfect" oyster, he will tell you that it is useless to look to any other locality. The Philadelphian is equally sure that the estuary of the Delaware is the perfect oyster's only home,—a local prejudice which the oyster-eater of New York attributes to a deplorable ignorance of what a first-rate oyster really is. Doctors differ; and the unprejudiced can only rejoice that anywhere between the parallels of 36° and 40° north, one may find oysters worthy of any human palate. Here in New York the favorites are, first and foremost, the Saddle Rocks,—a variety which Jerseymen insist has been exterminated these many years. They still remain, however, not only as direct descendants from the colony about the original Saddle Rock, but in many other localities in Long Island Sound; for it was not a distinct variety that gave the name its fame, but only an exceptionally thrifty chance-sown bed of the common natives,—a grade of oyster that artificial culture easily and constantly rivals. Next in rank may be mentioned the Blue Points, coming chiefly from Great South Bay, Long Island; the same as the former in stock, but bred under different conditions, and so differing somewhat in flavor. The products of Shrewsbury River, N. J., probably come next; these were formerly transplanted natives of Newark Bay, improved by development in the favorable waters of the Shrewsbury; but more recently, we are informed, the seed is commonly brought from Long Island Sound.

Twenty years ago the oyster business was carried on at the north very much as it now is in more southern waters. The natural beds were mercilessly dredged—as they still are, for that matter—and the perpetuation of the supply was left for the most part to accident. Occasionally a man who owned a mill-pond or claimed the control

of a limited natural bed in shallow water, would endeavor to make up for the deficiencies of nature by the importation of seed from the Hudson or elsewhere; but for all



A VETERAN.

that the supply steadily diminished. The moment a chance-sown bed was discovered a fleet of dredgers would gather in hot haste, and in a little while every obtainable oyster would be carried away. Nothing was done to repress the ravages of star-fish and other enemies of the oyster, and its utter extermination was seriously threatened.

From time to time local laws were enacted restricting the amount of oysters that might be taken by any one man in one day, and forbidding the working of oyster-beds during the summer season; but these afforded no real protection to the more valuable natural beds in deep water, while the close time, from which so much was expected, proved a hindrance rather than an advantage to the multiplication of spat. One other law, however, indirectly and unwittingly furnished a basis for the development of American oyster culture—the only really practical and profitable system of oyster propagation the world has seen. To enlist her citizens in the work of restoring and preserving the oyster-beds of the Sound, the state of Connecticut passed an act granting to any resident of the coast the privilege of

having surveyed and set off for his own use a small area of Sound-bed, not already productive, on the sole condition that it be stocked and kept stocked with oysters. Immediately a large number of such

ments of oyster land fell into the hands of professional oystermen.

At the time referred to, twenty years or so ago, there were among the oystermen of Norwalk two young men, brothers,



THE WATCHMAN'S HOME.

claims were entered, and there was a promise of a great renewal of once famous beds which had been depleted by over-dredging or by the ravages of star-fish. But the promise was not fulfilled. The measures adopted for restocking the grounds were inadequate or useless; nothing was done to insure the fixing of spat or to protect from the attacks of their enemies such young oysters as chance supplied; and when a bed happened to be successful it was more likely to be stripped by thieves than to yield a profit to the owner. Only those who were directly and constantly employed in the business could manage such property advantageously; and gradually (and in spite of

by the name of Hoyt, who held possession of a few acres of oyster ground, which they annually replenished with seed brought from the Hudson River. The young oysters, attached to empty shells and other rubbish, were usually gathered and transplanted in the summer time, when nothing was doing in the regular oyster trade; and it was repeatedly observed that later in the season a plentiful crop of still younger oysters had established themselves on the imported seed. Whence did they come? Were they imported with the others when too small to be seen, or were they the offspring of native oysters spawning on the spot? If the latter were true why should not the spat be equally

plentiful where no planting had been done? The question was hard to answer. Even among professional naturalists, at that time, the physiology of the reproduction of oysters was an unsolved mystery. Yet our young oystermen were confident that there must be a reason for what they saw, and that if they could once master it they would not only be saved the cost of bringing seed from abroad, but they would be able to produce regularly the higher grade of oysters natural to the waters about Norwalk Islands. To this end Mr. Charles Hoyt studied oysters individually and collectively with the direct-



KEG-MAKING.

strenuous opposition from those who refused to recognize the authority of the state to divert to individuals what had always been common right) the more valuable allot-

ment and perseverance of a born naturalist. He practiced vivisection relentlessly, watching the oyster's internal changes day by day, particularly during spawning time, until



AN OYSTER FARM, NORWALK ISLANDS.

he was able to tell from an oyster's appearance not only whether those of a given bed were about to spawn, but when the spawning would begin. At the same time he was as intently studying the external conditions of successful spawning, by far the obscurer problem of the two. Some seasons every object exposed to the tide would be found covered with spat. At other times, though the parent oysters showed every evidence of good spawning condition, and were seen to emit spawn in abundance, the young crop would be a total failure. A clue to the mystery was first found in noticing that with a general failure of spat certain localities would be found in the fall thickly set with young oysters; and these were places

which had been much dug over during the summer by men tonging for clams. Further, it was observed that objects known to have been lost overboard during the spawning season—tongs and dredges, rubber boots, bottles, anchor stones, clam-shells opened for fish-bait, and so on—would be found in the fall well covered with young oysters, while the surrounding objects were quite barren. Why should these things be? Mr. Hoyt not only asked himself this question again and again, but put the question repeatedly to nature, believing that the answer would make him master of the secret of successful oyster breeding. The story of his experiments, his unaccountable successes, and (at the time) still more unaccountable



DREDGING UNDER THE ICE.

failures, would furnish an entertaining record of Yankee acuteness, pluck and perseverance; but there is no space for it here. It is enough to say that after long groping in the dark he began at last to see his way clearly, arriving at the following conclusions of vital importance in oyster culture:

First: That the young oysters are born during July and August, earlier or later according to the season, the depth of the water, and other external conditions.

Second: That the young oysters, or spat, swim freely for a time, then attach themselves for life to some solid object if anything suitable be presented; if not they die.

Third: The supporting object, which may be any firm substance, *must be clean*,—that is, free from the slime that speedily covers everything under water.

For the successful propagation of oysters, two conditions are therefore essential: the breeding oysters must spawn, and the vagrant oyster-brood must be furnished with suitable resting-places at the precise moment when they are ready to settle down for life. It is in supplying the latter, surely and cheaply, and in a way that answers for deep water as well as shallow, that the superiority of American oyster culture consists. And it is to the credit of Mr. Charles Hoyt, that two or three years before the famous studies and discoveries of Professor Costé were begun in France by command of the French government, he had anticipated them alone and unaided; and more, he had put his discoveries to a more successful use, employing simpler, more natural, and more economical methods of oyster propagation than the French oyster farmers have attained to even at the present day. The best of the French methods, the "tile method," developed by Dr. Kemmerer, of St. Martins, Isle de Ré, is at once feeble and enormously expensive compared with the American method; and its application is limited almost exclusively to flats daily laid bare by the tide. In our climate such operations would not survive the first cold winter, even if it were possible to produce oysters by them at anything like the price which oysters bring in our markets.

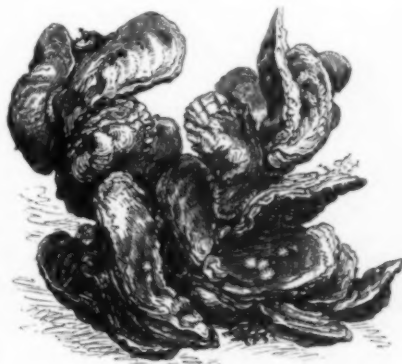
Though simple, the internal structure of the oyster is much more curious and interesting than might be supposed. Let us examine one as it lies, a tempting morsel, on

the half-shell before us. At first sight it seems to consist of two almost structureless parts only—a central tough portion commonly miscalled the heart, and a larger mass



SEED; ONE, TWO AND THREE YEARS OLD.

of whiter and more tender substance edged with black. The tough part is the strong muscle with which the oyster closes and holds together the two valves of its shell. When the muscle is relaxed the valves are slightly thrust apart by means of a small elastic ligament in the hinge, the oyster's normal condition at rest being with its doors a little ajar. The softer portion of the oyster's body comprises the various organs of life, common to all animals of the higher grades. That pulsating, purse-like transparent body in the cavity back of the great muscle, is the heart. In spite of the rough usage the animal has received in the process of opening, the heart keeps on slowly beating. Life persists,—sensitive life, too, as readily appears on touching the border



A CLUSTER OF SEED.

of fringe around the oyster's outer edge. See how it shrinks from the touch as though in pain. And notice the quivering motion of the filaments of the dark border when looked at through a magnifying glass. It is by the movement of these fleshy threads or cilia, that the oyster keeps up the circu-

lation of water through and around its body to serve the purposes of respiration and the capture of food. Lift up the upper flap of the fleshy mantle which covers the animal's viscera. The four-fold series of frills thus disclosed are the oyster's gills. Carefully cut away the lifted flap, and the greater part of the oyster's internal economy will be laid bare.

Very little requires special explanation. The current set in motion by the cilia flows downward toward the hinge, passing to the mouth through the tentacles, which, like sensitive lips, select from the contents of the stream the living atoms which constitute the oyster's food; for the oyster is not an omnivorous scavenger, as has been thought, but a dainty feeder, subsisting entirely on living organisms. The rejected particles pass on around the muscle, and are cast out with the stream, which, taking up in its subsequent course the waste and refuse of the system, serves as a common sewer to this close-walled realm. The stomach lies below the mouth, concealed by other organs; so also does the large and important organ, the liver: and the two usually contain digestive juices enough not only for the oyster's need, but also for the need of the man who eats it. It is this ability of the uncooked oyster to digest itself that makes it such a welcome morsel to the stomach of the dyspeptic.

Sexually, the oyster is complete in itself, the ova being produced and fertilized by the same individual; and every mature oyster is capable of being the parent of millions. Reproduction begins the third or fourth year. The ova are not at once cast upon the water for development, as in the case of most other mollusks, but are retained in the folds of the gills for hatching. At an early stage the ova are fecundated; and, bursting the capsules which contain them, they swim freely in a thick white fluid prepared for their reception. At this time the oyster is said to be in "milk." Gradu-



DREDGING AT CHERRY-STONE, CHESAPEAKE BAY.

ally the fluid thickens, until the swarming young are ready to be turned from their parental shelter to shift for themselves. Then they are ejected in puffs of milky cloud, the pasty coating of each young oyster quickly hardening into a delicate shell as soon as it comes in contact with seawater. At this stage the young fry have little likeness to their parent; but their free life quickly ends. Their shell thickens, and losing their capacity for swimming, they are forced to adopt the settled life of their kind—unless, as occurred with the specimen figured on page 234, they happen to settle on the back of a crab or other traveling object.

The prime secret of successful oyster breeding lies, as already noted, in capturing the young vagrants just at the time the character of their life changes. In this it will not do to trust to nature alone, in other words, to accident. Nature fails too frequently; so art steps in and makes sure that the conditions under which nature succeeds are uniformly secured at the critical moment.

The oyster farmer's work falls naturally into two parts. During the cooler months he is chiefly engaged in harvesting his crop and preparing it for market. As warm weather approaches he begins the more specific work of making ready for the spawning season. As the oyster requires from three to five years to mature, it is evident that the grounds of any extensive grower will present beds of oysters in various stages of development, with other areas from which the matured crop has just been gathered. In no case, however, will

the oysters of any bed be of absolutely uniform age. It would be a profitless task to try to take all the oysters from a field; and there is generally an abundance left after a crop has been gathered to supply any desired amount of spawn, in case the ground should be wanted for breeding-purposes.

As the work of gathering for market slackens in May, the oysterman begins to "comb" the beds that contain his growing stock, by means of coarse-meshed dredges. In this operation the oysters which have settled into the mud during the winter are lifted out, scoured of slime, and loosely scattered upon the surface. At the same time the larger clusters are removed and broken up for transplanting to thinner beds; the predatory star-fish and whelks are caught and killed, and the ground is left in condition to receive kindly the young spat which will soon swarm in the water.

The propagating beds receive a very different treatment. On these there will be a few old oysters left for seed, or selected oysters will be placed there as a brood-stock; and as spawning time approaches the oyster farmer will make ready the "stools" which are to afford resting-places for the coming crop. In assorting the oysters sold the previous season he has accumulated a considerable pile of refuse shells, dead star-fish, whelks, gravel, etc., which by sunshine and shower has been freed from mud and animal matter, and otherwise fitted for the reception of spat. If the promise of an abundant spawning is good he will supplement this pile of stools with some hundreds, perhaps thousands of bushels of clean shells of oysters, clams, scallops, and the like, and many sloop-loads of gravel. The depositing of these stools begins as soon as the oysters show signs of spawning. Usually four or five hundred bushels of shells, or from five to six tons of gravel, coarse and fine, are required for each acre of breeding-ground, the shells and gravel being cast upon the water by the shovelful as the boat drifts with the tide. A marked advantage is gained by using stools of unequal sizes; apparently not so much for the greater range of choice presented to the young spat, as for the mechanical action of the unequal stuff upon the bottom currents. The floating spat doubtless take refuge in the little eddies created by the irregular bottom, and remain until ready to strike, when otherwise they might be swept away and lost. At any rate, it has been repeatedly observed that the mixed stools have ar-

rested an abundance of spat where the unmixed stools have failed.

It is not enough that these needed lodging-places be scattered over the bottom in readiness for the home-seeking spat; they must be in proper condition to welcome their expected tenant,—that is, entirely free from slime. And as this slime quickly covers every object under water it is clear that hap-hazard work at such a time will not answer. Besides, the precise moment of spawning is determined not by the almanac, but by the general character of the season, the position and nature of the ground, the depth of the water, and so on, and may be any time between the first of July and the last of August. Again it sometimes happens that the spawning process is aborted; the ova fail to be developed; in which case the most inviting of stools would be offered in vain. Thus it requires no small degree of special intelligence and practical skill to determine when the proper moment for stool-planting occurs; for the lack of which many have thrown away their stools and their labor, and jumped to the conclusion that oyster breeding is more a matter of luck than of science. The infant oysters begin to be plainly visible in about a fortnight after they strike; under specially favorable conditions they have been discernible in eight days. For the first three or four months their growth is slow, after that they increase in size very rapidly.

Would you like to see how an oyster farm looks? You may be sure of a pleasant sail, this fair October day, at any rate; for our host, the pioneer in successful oyster farming, has placed a tidy smack at our disposal, and will see to it that the pursuit of knowledge does not spoil companionship or lessen the enjoyment of sea and sky. Last summer a broad tract lying between the islands and yonder wooded shore was stocked with breeding oysters and duly planted with shells and gravel; a half-hour's run down the harbor will bring us to it. It is a pretty bit of water, backed by low hills, bright with autumnal colors. Only a few protruding poles give indication of the wealth that lies below the surface; let us see what report the dredge will give.

It takes but a moment to cast off the iron-jawed bag of netting; in another minute or two the boat comes about and the catch is hauled in and emptied upon the deck. Mere rubbish, you are disposed to call the dirty mess of empty shells and gravel, with only

two or three fair-sized oysters to keep company with a ragged, sprawling spider-crab and a couple of star-fish. But look closer. Here is half an oyster-shell specked with little brown things scarcely larger than pin-heads. They are young oysters. Count them! Seventy-nine! Take another shell at random; you count a hundred such spots, and there are more on the other side. Those golden spots are not oysters, but young "gingles": the majority are—oysters enough to fill a bushel-basket when fully grown. This pebble, no larger than a hickory-nut, carries a score or more; and similarly every particle of this seeming rubbish is loaded with promises of future profit and enjoyment. If no more than one in ten survives, the crop will be a good one. Drop the dredge anywhere on this well-stocked ground and the same favorable report will be returned. A promising patch, the owner calls it; and,

removed for making up deficiencies on other grounds; by the same operation the loose "seed" will be lifted out of the mud and the ground prepared for another falling of spat. The second year the combing and thinning will be repeated lest the crop become too crowded; and if all goes well, a further thinning out will be required the year after, by which time the oysters of this year's birth will be ready for transference to the fattening-grounds, where another year's development will fit them for market as fancy Saddle Rocks. In the meantime the seed (last year's oysters), now being transplanted, will have undergone the same course of treatment. There is no danger of over-combing, for the seed which slips through the meshes of the dredge will be all the ground can carry, and the more the bottom is disturbed in this way the surer the new crop. The surplus seed removed in the process of comb-



OYSTERS ON VARIOUS "STOOLS," AVERAGE ONE-SIXTH NATURAL SIZE.

indeed, the acres inclosed by its corner stakes do seem but a patch upon the broad surface of this beautiful bay, itself a mere patch compared with the square miles of oyster fields along the Connecticut shore.

Next summer the spawn of the season just passed, grown by that time to the size of a nickel coin, will be combed and the clusters

ing usually finds a ready market among the oyster growers of adjacent waters, who now draw their supplies from the Sound rather than from the Chesapeake or other southern waters; and latterly a considerable demand has arisen for northern seed for transportation to England and to the Pacific coast; the beginning, no doubt, of a large and

profitable trade likely to make seed raising a specific branch of oyster farming.

Up to this time, however, the foreign demand for young oysters has not been of general advantage to the home trade. Unable to compete with foreign buyers in point of

on uncultivated ground as we proceed to that portion of our host's domain devoted to oysters of maturer growth. Here in the broad channel between the islands is a tract of common ground,—that is to say, it has always borne oysters, and consequently no



THE OYSTER'S ENEMIES AT WORK—(STAR-FISH, WHELKS AND DRILLS).

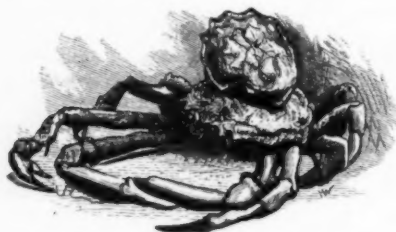
price, many oyster growers particularly those of Long Island who have not learned to raise their own seed, have resolved to plant no more oysters until the price of seed is reduced; a wise enough resolution, provided they adopt the one legitimate and certain means for cheapening seed, namely, artificial propagation. Thus far, unfortunately, they have not taken kindly to this good work. Heretofore they and their fathers have been satisfied with the unaided efforts of nature, trusting to chance-sown beds of seed for the replenishing of their grounds. When oystermen were few, the areas under cultivation small, and the demand for oysters comparatively limited, such happy-go-lucky methods may have answered very well. But times have changed, and men must yield to the logic of events or retire from the contest. The winners in this, as in every other competition involving natural processes, must inevitably be those who leave nothing to accident, who know the conditions under which nature succeeds and skillfully supply such conditions.

To test the relative beneficence of aided and unaided nature, let us cast the dredge

one has ever been allowed to cultivate it. The dredge passes freely over the clean gravelly bottom and comes up but scantily loaded, though it has been down much longer than any previous cast. What have we in it? The first to attract attention are three or four ungainly spider-crabs, ugly but harmless. Half a dozen oysters, mostly two or three years old, a number of half-grown scallops, a multitude of drills, gingles, double-deckers, a whelk or two, and perhaps half a peck of small stones and empty shells,—these worthless commodities complete the catch. You may look long without finding a single oyster of this year's spawning. Observe, however, this shell with a large round hole through one valve. A boring whelk did that; and in killing one oyster, made opportunity for a dozen others to start on the hazardous road to maturity. See these brown scales on the clean white of the inner surfaces; they are young oysters, which, thanks to the whelk, were able to find a timely resting-place. This clam-shell also is fairly well tenanted; it was opened for bait by some summer fisherman, most likely, and thrown into the water just in

time to catch a few spat. But the rest of the shells and all this gravel must have been too foul to receive the spat, and consequently the prospect is not encouraging for those who may wish, four years hence, to reap the benefits of this common ground. Nature is a careless mother at best; and of the countless millions of embryo oysters that swarmed in these waters last summer, very few were able to find a suitable resting-place. Nature betrayed them at the critical moment, and now they are not. Had these grounds been subject to individual ownership and personal care, they would not have been allowed to remain in barrenness. Whether the general public would have lost or gained by a surrender of its profitless right to those who would have made a thousand oysters grow where scarcely one now appears may be left to the reader's judgment to decide.

As we pass another line of stakes marking the boundary of private property the dredge is cast again. Lay your hand on the rope: the water is three fathoms deep, yet you can feel the multitude of oysters rolling in between the dredge's iron jaws. Haul in! A cable's length away, a bottom quite as good as this would have yielded nothing of value. Here the dredge comes up loaded with oysters, the most of them ranging in size from a silver quarter to a half-dollar piece. They are now in their second year, a few in clusters of two or three, but the majority single, and all showing the rounded outline which delights the oyster-lover.



OYSTER ON THE BACK OF LIVE SPIDER-CRAB.

Here and there in the pile is a gaping shell, some with one valve shorter than the other, some with a pin-hole through the purple spot where the muscle was attached. The former have been killed by star-fish, the latter by drills,—innocent-looking creatures both of them, but dreadfully destructive to oysters. Fortunately, the drills confine their attacks to the young broods when thinning out is not so injurious. The stars kill at all ages. Sometimes they come up from deep

water in swarms as countless as Colorado grasshoppers, and ravage an oyster plantation as relentlessly as the latter do the wheat fields of the border. Yonder sharpie is engaged in replanting a large tract which the stars invaded last spring, when the only oysters saved were those that were hastily removed in advance of the destroying host. By such attacks a man may lose his entire fortune before his danger is suspected, and at all times it is only by constant watchfulness and persistent dredging that these pests are kept within tolerable limits.

In course of time, when the number of oyster farmers is largely increased, it may be possible by united effort and the maintenance of a special police working steam-dredges to keep the stars under control, if not to exterminate them from these waters; but for many years they are likely to remain the chief source of annoyance and loss to this important branch of industry. Now and then a boring whelk or a winkle will kill an old oyster, or a boring sponge riddle a shell and divert its owner's strength to the work of maintaining the integrity of its pearly coat; now and then a violent storm will bury an oyster-bed under a smothering mass of weeds or mud; or, if in shallow water, will roll the crop ashore, or crush it to death with drifted ice; but these are occasional and minor evils, compared with the ceaseless depredations of the stars.

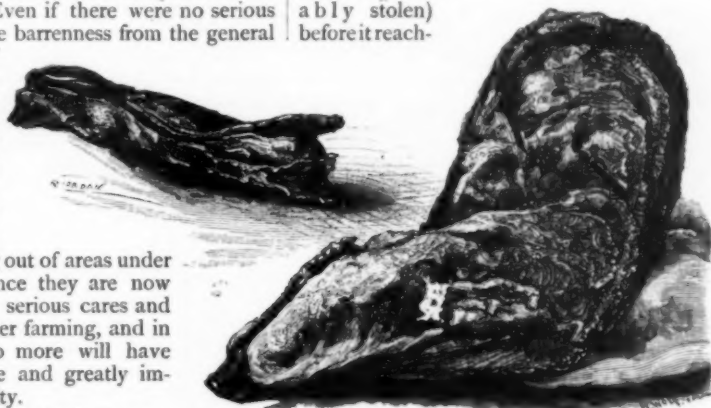
While our host has been recounting the troubles and risks of oyster farming, his tidy craft has carried us to another ground from which the dredge brings up an attractive lot of round oysters, from two to four years old. Vast quantities of oysters of this size are annually opened at Fair Haven and the meats forwarded in tubs and barrels to the interior cities of New England for immediate use. And of late years a considerable demand has arisen for such oysters to be served on the half-shell as appetizers before a meal—a foreign fashion, which if kept within bounds is not a bad one, for young oysters thus served are unspeakably dainty and delicious. The general use of such immature oysters, however, is not to be commended, since it has nearly ruined the French oyster growers and largely helped to destroy the valuable natural beds along the Scotch and English coasts. The oyster rarely spawns before the fourth year, and if the beds are stripped at an earlier age, as has been largely the case in Europe, the fall of spat necessarily fails. As a recent English writer has said, speaking of the oyster breeders of Arcachon,

Marennnes, the Isle de Ré and other places, they "have killed the goose for the sake of its golden egg, and now we are beginning to be told that artificial oyster culture is not paying in France, and that the spat has failed! The excuse is amusing: how can they have spat if there be no oysters left to exude it?" Even if there were no serious risk of ultimate barrenness from the general destruction of immature oysters, it would seem wasteful if not wicked to kill them at this stage (further than may be necessary for the thinning out of areas under cultivation), since they are now past the more serious cares and dangers of oyster farming, and in a year or two more will have doubled in size and greatly improved in quality.

Yonder is an oyster-sloop nearly loaded with marketable oysters; let us run alongside and look at them. How bright and clean they rise from this gravelly bottom, swept almost constantly by a tide that runs like a mill-race. There can be no better fattening-ground. Observe this handsome four-year-old, a typical Saddle Rock, nearly as broad as long, and half as thick as it is broad. It was well formed when transplanted a year ago, but thin. You can see the lines of the old shell, and how great the increase in thickness has been. With scarcely any change in area, the bulk of its meat has nearly doubled. This six-year-old is another beauty, so regular in form, so healthy in appearance; and the rest are not unlike it. It is now at its best. It might live a dozen years longer without much enlargement save in the thickness of its shell. Notice the changes that have been wrought in these less regular forms, in the effort to attain the typical oval form. When transplanted they were thin and crooked; during the past year they have added nothing to their length, but very much to their breadth and thickness. Here is one that had been left too long on a muddy bottom and had developed into a regular "Shanghai." In transplanting, fully an inch of one valve was broken off at the end, and a new beginning was made at the broken edge.

Very curious are the alterations often made in ill-formed shells in consequence of

removal to a different bottom, all showing the susceptibility of the oyster to changes in the external conditions of its life. A most remarkable illustration of the oyster's ability to withstand rough usage was shown in a specimen, set aside for representation here, but lost (probably stolen) before it reach-



REPAIRED SHELLS.

ed the artist's hands. The shell had been caught somehow by an oysterman's tongs or dredge, unhinged, and the valves turned at right angles to their normal position. In spite of this terrible wrench, the animal not only survived but constructed a new hinge, walled in the exposed angles, and re-arranged its internal economy to conform to its new condition. When taken, it was alive and hearty, its eccentric shape alone drawing attention to its strange experience.

The changes wrought by cultivation in the oyster's outside appearance are not more remarkable than the improvement of its meat. The body grows deep and large and solid; the mantle, naturally thin and skinny, thickens to the very edge with firm white flesh; and the quality of the meat surpasses that of the uncultivated oyster as signally as high-bred, stall-fed beef does the product of Texan pastures.

As they come from the fattening-grounds, the oysters are naturally charged with bitter sea water, more or less muddy, and the large stomach is filled with undigested food. To fit them for the table, they must be "floated"—that is exposed for a tide to sweeter water. The oyster grower's land station is usually at the mouth of a river, and when the oysters are brought in they are allowed to rest for a day or so in large shallow floats open to the current. Here

the oysters are washed by the upper layer of fresh water, which purges them of all impurities and leaves them white and sweet. In this condition they will live and retain their flavor out of water for three months if closely packed and kept cool.

When the inquiries were made for this article, oyster grounds were valued at from



OYSTERS ATTACHED TO OLD RUBBER BOOT.

fifty to five hundred dollars and more an acre. It is to be presumed, however, that there has been a shrinkage in these values as in the case of all other property. Under favorable circumstances, an average yield of five hundred bushels of oysters to the acre can be reasonably counted on, very much larger crops being common. From four to six years are required for the maturing of a crop of spat, in which time an acre of seed will have increased to two or three thousand bushels if properly handled and cared for. This, it is to be feared, but rarely happens, most oyster growers trusting too much to nature for the development of their stock. Left to themselves, the oysters crowd each other and become pinched and ill-developed. Many die; more are killed by stars and other vermin; and those that are left are in the end sadly inferior in size and quality to what they ought to be. In sea-farming, as in every other occupation, it is only the intelligent, diligent and watchful that command high success.

Shortly before the war of the rebellion the oyster-beds of Virginia were represented by Governor Wise as having an area of nearly 2,000,000 acres, averaging four hundred bushels to the acre. The Virginia oysters are enormously prolific, and there

were none but human enemies to limit their increase; yet so unsparring and persistent had the pursuit of them become that they were in imminent danger of extermination. The war gave the oysters of the Chesapeake a respite, and the work of depletion was stayed; but it was speedily taken up again, and already the oystermen of those parts are deploring the exhaustion of their most valuable beds and the necessity of going further and further out for their supplies. The natural advantages of the Chesapeake and its tributary waters for the rapid growth of oysters are unsurpassed. Nevertheless, those seemingly exhaustless fields are faring precisely as oyster-beds have the world over when left to the mercy of men who have but one object in connection with them, and that is to gather each day the largest amount possible, regardless of the future. There never yet was a useful natural growth, however vigorous and prolific, that could hold its own against human greed untempered by personal ownership.

"No fishery," observed a prominent member of the British Oyster Fisheries' Commission lately, "No fishery can fail to be destroyed if left to the interested ingenuity of man, the oyster fishery least of all." The opinion is a plausible one—but it is utterly mistaken.

The British government has acted on it for years, vainly striving to foster the multiplication of oysters and oyster-beds by restrictive measures, close times, and the like, and all the while the oyster crop has fallen off and the prices of oysters has risen; they were ten dollars a bushel in 1862, and more than seven times as much in 1875. In like manner it has been attempted in this country to thwart, by various enactments, the "interested ingenuity" of oystermen, and always with an effect contrary to what was expected. The cure lies in the very opposite direction. If the depletion of our oyster-beds is to be stayed, if a constant supply sufficient to meet the steadily increasing demand is to be maintained, it will be by increasing the interest—personal, pecuniary interest—of oystermen in the oyster-beds, not by trying to thwart or restrain it. Oystermen must be allowed to be something more than oyster catchers. The ownerless buffaloes are doomed to certain extermination; they are nobody's property and everybody's prey. So likewise are the ownerless oysters.

The oyster commissioners of the Chesapeake predict that if the steady exhaustion



PINCHED OYSTERS (CALLED SHANGHAIS).

of the oyster-beds of Maryland and Virginia continues, the entire stock will be used up within half a century, and we may be sure that no diminution in the demand for oysters will cut short the work of destruction. That the predicted extermination of the oysters of those waters, or any of the waters of our Atlantic coast, will really happen, however, we have not the slightest

uncertain title, such as has been granted along the Connecticut shore, certainly does not point that way. While the perpetuity of oyster-beds on common ground has everywhere been seriously threatened, a shadowy title to cultivated ground has sufficed to cover miles and miles of once unproductive Sound-bed with the finest oysters in the world. Were the title made good enough to borrow money on, there would be no lack of capital to stock the rest of the Sound, or of men to cultivate its inviting acres now untilled.

Our excellent and serviceable National Fish Commission might do well to move in this matter. An act of Congress authorizing the sale of soundings along the coast exclusively for oyster farming would help the work enormously. The coastwise states, by supplementary enactments, could easily place the oyster farmer on an equal footing with the ordinary agriculturist with great advantage to them and to the country at large. There would be some delicate questions of local jurisdiction to settle, and some common rights to ordinary fisheries to be protected, but these need not lead to any



OYSTER-BOATS.

fear. The nation cannot afford it, and will prevent it by giving to oyster growers the best of all encouragement—freedom and protection.

The country is well stocked with domestic cattle, and there is little danger of the supply running out. Suppose they were suddenly declared to be common property, as the oysters are, and no one allowed to hold a permanent personal interest in any he suffered to remain alive,—how long would the supply be kept up? In the case of cattle the interested ingenuity of man is wisely conservative; their numbers are increased and their quality improved by careful selection and cultivation. Why should the rule be reversed under water? Suppose the government were to authorize the survey and sale of shallows—in other words, land suitable for oyster farming—and make the oyster grower's title to the ground he stocks and the crop he raises as secure as the upland farmer's is,—would the quantity or the quality of the oyster crop be endangered?

The effect produced by a partial and



A STRUGGLE FOR LIFE.

serious difficulties. Nor would navigation be interfered with or impeded in the least.

The productive area which might be

added to the public domain by thus taking in the cultivable coast is simply enormous. It lies at our very doors, and the cost of reclaiming it would be small compared with the wealth it would return. Once assured that their growing crops would be as

home and abroad advances even more rapidly than the supply. And if every acre of available coast-water, from Cape Cod to the mouth of the Chesapeake, were brought under cultivation, it is doubtful whether the supply of oysters could ever



A YOUNG CULTIVATED AND AN OLD UNCULTIVATED OYSTER.

secure against trespass as the upland farmer's, the oystermen of Long Island Sound would go on extending their operations until every acre of the Sound-bed would be brought under cultivation. The depth of the waters would offer no obstacle, either to the growth of oysters or their propagation, since the finest natural oysters the Sound has produced were found in the deepest depression of that submerged valley, and the American method of cultivation answers as well in deep water as in shallow. By the gradual extension of cultivated ground, the star-fish and other pests of the oyster-bed would be brought more and more under subjection, and with the lessening of the risks and losses the cost of raising oysters would be reduced and the price would fall accordingly. The employment of steam power for propulsion and for hauling dredges would more than make up for the extra labor of dredging in deep water; and with the improvement in modes and means of working likely to come from the cultivation of large areas, the productiveness of the grounds—already worth more, acre for acre, than the best farm land—might be greatly increased.

The demand for American oysters at

outrun the demand. Vast as the present commercial and alimentary importance of the oyster trade has become, it is but in its infancy. It is capable of almost infinite extension; and when the supply is drawn, not merely or chiefly from unprotected natural beds, chance-sown and accidentally developed, but from larger areas systematically stocked, cultivated and defended against vermin and the unregulated greed of man, the oyster crop will rank among the first of American resources in point of value as it now does in point of excellence. It is nourished by the inexhaustible sea; it steadily enriches instead of impoverishing the land, and the average yield is several times more abundant and remunerative than any grain crop. It is little less than national folly, therefore, to pride ourselves on practical thrift, while slighting a field of productive industry so promising as this is; still worse to discourage honest enterprise in it, as has been done hitherto, by legal restraints. What has already been accomplished in the face of popular opposition, financial difficulty and needless risk, is a guarantee that the field is well worth working, and also that there would be no lack of workmen were they offered proper encouragement.



SONNET.

THE foolish bud would fain become a flower,
 And flaunt its heart out in the fair sunshine;
 The ardent blossom, tremulous on its vine,
 Dreams only of a golden fruitful hour.
 Amber and amethyst, of royal dower,
 The perfect, purple clusters hang, and pine
 To pour their souls forth into perfumed wine,
 Impatient leaning from their sheltered bower.
 O blind ones! All your blended stores of scent
 And subtle sweets to this poor end are spent;
 That man should idly quaff from sparkling glass
 Your dew and fire and spice; sighing, while e'er
 Your honey lingers on his lips, "Alas
 The bud, the bloom, the fruit! How sweet they were!"

HIS INHERITANCE.

BY ADELINE TRAFTON.

CHAPTER XII.

DID HE SAY HE SHOULD COME AGAIN?

BUT the skating carnival was doomed never to take place. Claudia's zeal waned before the preparations were well under way. After hope, despair. In these alternations the days passed, until angry jealousy took the place of both and put an end to all desire to please and entertain her visitor. For Claudia now looked in vain for the renewal of the old intimacy with Captain Elyot, who did not avail himself of the permission she had given him that night at the door. He often passed the house, either alone or with companions; sometimes she met him face to face. He went in and out at Mrs. Stubbs's,—she herself had seen him,—but he did not come to her. It tormented her day and night. If she only knew the cause of his staying away, she would be satisfied, she said to herself. Why had he asked to come if he had not desired it? What could it be that stood in the way? Not that she went about sighing, and groaning, and wringing her hands. Civilization has turned a key upon expression. No; Claudia lived her usual life, to

outward seeming, even partaking of the pleasures that came in her way, though without the heart to originate any. She was quiet,—perhaps more so than in former times,—cool, and, if the truth be told, a little cross in the sanctity of her own home where one may certainly be allowed some privileges of expression. But Captain Elyot never dreamed of the mischief his careless words had wrought. They had passed from his mind—with a faint regret over their having been uttered—before he reached his quarters. If any thought of the evening lingered long with him, it was over Blossom, who had, without doubt, expected him. He fancied her alone,—as she was so many hours of the day,—listening for his knock at the door, turning her soft brown eyes toward it at every step outside; for, notwithstanding Lieutenant Orme's occasional notice of the girl and his freaks of kindly attention, it was to Elyot himself that she looked for her pleasures and the relief from the dullness of her life at the post. He had promised to teach her cribbage. They were to have made a beginning this night.

But Blossom had not passed so forlorn an evening as he imagined. It is well for peo-

ple to learn that they are not the hinges upon which the lives of others turn, and the young man would have received a shock of surprise, to say the least, had he passed her window an hour earlier than he did. The clear stillness of the winter night outside was shivered by the sound of young voices singing within the parlor,—not the doleful ditties which Blossom bestowed upon her friends, but gay, two-part songs and merry

Elyot said to Lieutenant Orme the next morning after the tea-party at the major's.

"I was not with them at all," replied Orme. "I spent the evening at the Stubbs's."

The room was uncomfortably warm, but this was like a puff of cool air in Elyot's face. So Blossom had not sighed in solitude, and the young man went there at his own pleasure now!

"There's a nice little girl for you," the



"HE BENT, WITH A SUDDEN IMPULSE, AND KISSED HER HAND."

glees from an old book Lieutenant Orme had picked up elsewhere. Some jolly fellow, ordered into the wilderness, had left it behind. They were droll songs to Blossom, with their "Tirra-la-las,"—all about hunting, and scenting, and rising betimes, and full of the blast of horns. Blossom's little fingers skipped and hopped about the keys,—no fox in the chase was ever more bewildered; but Mrs. Stubbs, at the further end of the room, taking her ease after the perplexing business of the day, thought it all wonderfully fine, and rejoiced over the girl's happy laugh, which filled every pause and took the place of more than one difficult passage.

"You left early last night," Captain

lieutenant went on, between puffing away at his meerschaum and critically eying its tint. "No sort of nonsense about her. I asked her to go out on the ice this afternoon."

"Indeed!"

"Yes; but the old woman objected. It was too cold, she said. I assured her that there was every prospect of a change in the weather, but all for nothing. She held out against me, and I confess I gave it up rather than rouse her. They say there isn't such a temper within a thousand miles if a spark happens to strike her. I've no desire to be that spark, and besides, she might deny me the house if I proved troublesome. I'll try her again the first mild day. Or suppose

you ask her, old fellow. She'd never refuse you. You might take Miss Blossom out, as you did the other day, and then turn her over to me."

"I might," the captain said, with a grim smile.

"That would be the surest way," the lieutenant went on, meditatively. "Her mother would never say no to you. Yes, she's a good little girl!"

He apostrophized her with a sigh, raising a cloud of incense in the silence his companion did not break.

Captain Elyot did not forget his promise to Miss Laud. The afternoon was fine, and they spent a long hour on the ice. Claudia watched them set out from behind the curtain of her room, where she was hidden, with a beating heart and a twinge of jealousy she could not overcome.

"What if he asks for you when he calls?"

Miss Laud was determined to steer clear of all dangers after her narrow escape the night before.

"You had better be ready so that he need not wait," Claudia had replied calmly. "Of course if he asks for me I shall see him. But in that case he might feel obliged to invite me to go with you."

"Why, then you would."

"Then I would not," said Claudia, with some heat. "Unless—unless there should be something very particular in his manner," she added, slowly, upon second thought.

But there was nothing at all particular in his manner when he appeared, unless it was the absence of all interest in Claudia. He did, indeed, ask if she were well, and hoped they should see her on the ice, in a coldly polite tone which struck a chill to the girl's heart, even through the door against which she had placed her ear.

Why did not Kitty reply? Why did she not call her? she thought, with a burst of tears, throwing herself upon the bed. But Miss Laud had no opportunity to reply. He had taken her skates from her hand with a "by your leave," and hastened her away, for all the world, as Miss Laud said to herself, as though he dreaded Claudia to appear.

But Miss Bryce did not spend the afternoon in tears. There was still a shred of hope left to her.

"Be sure that you ask him to come in when you return," she had said to her friend. "You may invite him to tea if you choose."

VOL. XV.—16.

It was only the night before that he had drunk tea with them, but his visits had once been almost daily, and why should they not be again? He had asked to come as he used. She wiped away her tears, arranged her dress, and was behind the shabby little window watching for their return before the afternoon had half passed away. It was almost dark when they appeared, Captain Elyot swinging Miss Laud's skates and his own, and the latter looking up into his face as they came on over the snow in the gray light, in a saucy, bewitching way not pleasant for another woman to see—if that other woman chanced to feel a personal interest in the smiles of the young man.

They stood a moment, these two, at the door, but Miss Bryce had retreated from the window. She did not feel that she could compose her countenance to meet Captain Elyot's eye. She listened to their voices, however, for their conversation was prolonged for some time after they had gained the door. A very gay time Kitty was having, and without a thought of her! Claudia could hardly keep back the tears of vexation while she hearkened every moment for the door to open. It did open after a time,—a long time it seemed to her,—but she could distinctly hear the retreating step of the young man. So he was not coming in, after all! And with the pang of disappointment, sharp as the stab of a knife, her friend entered, happy and most inappropriately gay and rosy.

"Claudia, I wish you had come out; we have had a delightful time."

"So I should judge from the sound of your voice at the door," Claudia replied, stiffly. "I only hope you have not caught cold standing so long outside."

And Miss Bryce bent over the work in her hand as though life were too short for its completion.

"Don't be cross, dear," and Miss Laud laid her rosy face against Claudia's pale cheek. "How could I help enjoying myself? Everybody was out,—and asked for you," she added quickly. Miss Bryce moved her face away. "And indeed I did invite him in, but he refused. He had promised to meet some one. It was about some affairs at the mess-room I don't understand, but I heard him make the engagement with Captain Luttrell on the ice. So you see, dear, it was no flimsy pretext to get off. But why were you not at the window? I kept him a moment, thinking you would appear."

"How could I stand in the window, as though I were watching for you and him?" Claudia said, relenting a little.

She hesitated, blushing faintly.

"And did he say anything, Kitty? Did he ask if I were coming out?"

"He asked that before we left the house," Miss Laud replied.

But there was little comfort in this assurance, since Claudia had overheard the inquiry.

"And there really was no opportunity," Miss Laud went on hastily as she disrobed.

"We were never alone a moment."

"But there was the walk home. I am sure you came on slowly enough to have talked over everything."

So Claudia had been at the window!

"Yes; and he gave me a most amusing account of a skating experience——"

But Miss Bryce did not desire its recapitulation at this moment.

"I know,—with the Slades," she said. "I was there myself."

But she did not so much as smile at the remembrance. She could hardly have patience with the levity of her friend. It was so exaggerated as to seem almost as though it were assumed. There must be something more—something held back.

"And was the sutler's daughter out to-day?"

"No; but she sat in the window as we passed just now, Claudia; and she has the sweetest face——"

"Did he see her?"

Claudia forgot her work for a moment.

"To be sure, he did, my dear,—having the use of his eyes! He took off his hat as though she had been a duchess. I really can't make him out. But I managed to refer to his visit here last evening, before he left me."

It was coming at last. This was what Claudia had waited for. She worked on steadily, but her face betrayed her, while Miss Laud ran on as she took off her wraps:

"'I'm afraid you found our game last night rather slow,' said I. 'Rumor credits you gentlemen with playing so high that a quiet hand at whist with a couple of poor players like Claudia and me must be stupid enough.'"

"'Rumor is a liar,' he answered, quite savagely (the young man is certainly not devoid of spirit). 'I can at least deny the story for myself.'"

"'Then you didn't find it utterly dull? We were afraid you might,' said I."

"'By no means,' he replied, emphatically. 'I never passed an evening further removed from dullness.'"

"Did he, Kitty? Did he really say that?"

"'Then perhaps you will repeat it,' said I. 'I'll promise you a better partner another time.'"

Claudia waited eagerly for what was to come. But here Miss Laud's memory failed her.

"He thanked me, I know, and added something of having spent many pleasant evenings here."

"But did he say he should come again? You must remember, Kitty, if you think a moment."

"I can't say; I really don't know; and yet the impression I received was that he would come."

And with this Claudia was obliged to content herself.

But days passed on and he did not appear, as was said at the beginning of the chapter. A heavy rain set in, flooding the ice and rendering all out-of-door recreation impossible. Even visiting was for a time out of the question, and Miss Laud yawned and sighed over the dreary prospect from the window, and wished herself back in the states again.

Claudia watched and fretted in secret. Why did he not come? Others of the officers dropped in, in spite of the storm. Men for whom she cared nothing braved wind and flood to reach them. He, only, staid away. Sometimes she doubted her friend. Was Kitty deceiving her? She appeared true and ready with sympathy, but to Claudia's sick fancy every face was double.

It was more than a week before the rain ceased and the heaviness hanging over the little company at the fort rolled away with the clouds. If the cold would but strengthen now, the skating would be finer than ever.

Miss Bryce, entering the parlor suddenly one afternoon, discovered her friend consulting the thermometer. At Claudia's appearance, Miss Laud reddened.

"It is growing colder," she said, with evident embarrassment, walking away from the window.

The cold increased throughout the night. By the second day the ice was pronounced safe, and every one prepared to enjoy it after the enforced rest. In default of a more desirable attendant, Claudia had accepted Lieutenant Gibbs as an escort.

"But I cannot think of leaving you alone all the afternoon," she said as she settled her hat in its place. "I'll only go out for half an hour. I thought Captain Welles asked you last night. Why didn't you accept? So fond of skating as you are, too, I could not understand your refusal!"

Miss Laud's back was turned to her friend. She did not reply at once.

"I refused him," she said presently, without turning her head, "because—I am expecting Captain Elyot to come for me, Claudia."

"What do you mean? When did you see him to make such an appointment?"

Claudia's voice was sharp, and near to breaking. But now Miss Laud faced her friend.

"Not since we went skating together more than a week ago. You may believe me, Claudia, I have never seen him since. But he engaged to take me out again the first fine day. You remember it looked like a storm that night."

"And you knew it all the time and kept it back! I would never have thought it of you, Kitty. I would never have believed you to be so sly."

There was a sudden quaver in Claudia's voice, and she burst into tears.

"I don't know why you should call me sly," Miss Laud said, with some spirit. "I would have told you that night but I knew you would be angry. You were vexed as it was because I didn't bring him in. I asked him; what could I do more? And it's little enough attention I have received from your friends. You need hardly begrudge me this, Claudia. I may as well confess that it isn't at all as I supposed it would be, or what you led me to expect from your letters. And my new dresses not so much as taken out of my trunks! I might —"

But there came a resounding rap at the door, and Jinny's head was thrust into the room, putting an end to Miss Laud's words, as well as checking Claudia's tears. Lieutenant Gibbs was in the parlor.

"You will never go out. Your eyes are frightfully red," said Miss Laud in a more composed tone.

The walls were thin; what might he not have overheard.

But Claudia disdained reply. She bathed her eyes and smoothed her hair, ruffled by the pillows where she had taken refuge, re-adjusted her hat and went. At last she began to feel something of a roused spirit. She had no one to depend upon but herself.

She saw clearly now that she must gather her strength and fight as best she could single-handed. What were red eyes in such an emergency!

When Captain Elyot called for Miss Laud (a duty he had nearly forgotten), he found her equipped and awaiting him. He had been entrapped into asking her again,—if one can be said to be caught who walks open-eyed into the snare. Her brusque, odd ways amused him; her saucy speech could not wound. It could sting, indeed; but, as a boy, he had learned to grasp a nettle boldly. She still persisted in bringing up Blossom's name; but forewarned now, he made brief reply, or none at all, to her suggestions and innuendoes.

The river was crowded with skaters. Even Mrs. Bryce had been tempted to try her clumsy skill, and Lieutenant Orme was happy in having Blossom under his care. Mrs. Stubbs had been cajoled into an unwilling consent at last.

Claudia and her attendant were already upon the ice when Miss Laud and Captain Elyot reached it,—not the angry, tearful Claudia of an hour before, but Miss Bryce at her best, well-dressed, graceful, almost handsome, and the observed of all.

"A charming day, certainly;" she replied to Captain Elyot's polite greeting, uttering the words with a smile.

They were almost like the smile and the words she had bestowed upon him months before,—perhaps not exactly the same, but at least equal to a photograph of the original. The amount of will and energy which the weakest woman will develop to hide her heart is beyond wonder and praise. Do not call it deceit. It is a natural growth, like porcupine quills, and intended for the same purpose of defense. Captain Elyot, who had remembered uncomfortably the manner in which he had parted from Miss Bryce that night at her door, and had determined to avoid her since, was set at ease at last. His vanity had deceived him, he thought to himself; the whole unpleasant evening had been but an echo of his spirit, which was out of tune. Claudia's old charming manner had returned, and he wished Gibbs success with all his heart. I am afraid he was a good deal befogged at this time, and hardly knew headlands from clouds. But the four formed a small circle for a moment, and nothing could be more amiable or even affectionate than the manner of the two young ladies. He little imagined that they had mentally vowed

never to speak to each other again less than sixty minutes before, and that he had been the occasion of the quarrel.

He devoted himself to Miss Laud, as in politeness bound, but his eyes would sometimes follow a slight figure in a fur-lined jacket shooting past, with Lieutenant Orme's long legs beside it. Other parties were dashing by with alarming velocity. Each time, Blossom and her companion seemed to increase their speed. It was reckless and unsafe; the careless boy was not to be trusted with such a charge, he thought, replying absently to his companion, and tempted to interfere at the risk of angering the lieutenant. While he hesitated, the calamity he had foreseen took place. There was an exclamation like a cry. The crowd pressed forward to one spot.

"Stand back! Stand back!" shouted an authoritative voice. "Don't you see that the ice is cracking under your weight!"

It was the major, who had just come.

The circle widened suddenly and broke. As it parted, Elyot saw a little motionless form, a dark heap, about which the others had gathered. There had been a collision between the mad racers, and Blossom had gone down. Before any one could raise her, he had dashed into the circle, lifted her in his arms, and was skating toward the shore, ignoring Lieutenant Orme, who, upon his knees beside her, was tugging wildly at the straps of his skates. The boy followed him as speedily as possible, as did most of the company, for she lay like one dead in the young man's arms. The afternoon's sport was at an end.

"Will you oblige me by apologizing to Miss Laud and taking her home," Captain Elyot said, coldly, to the young lieutenant, who came up as the former was having his skates removed.

The poor lieutenant, terrified and repentant, went off without a word to do his bidding, while Captain Elyot carried Blossom home to her mother. Any one of the women who had regarded her so superciliously a moment before, would have gladly done something for the poor little thing now. Some one offered to run on and prepare Mrs. Stubbs. But the dash over the ice had begun to revive her already, and by the time she was laid upon the fine sofa in her own parlor, Blossom had opened her eyes. Half the company who had witnessed this accident had crowded into the room or hung about the open door.

"What is it?" Blossom cried, in an

excited tone, waking to find all these strange faces about her.

"Nothing at all, child. Don't you be fretted," said her mother, with a strange quaver in her voice.

"You fell on the ice. They came to see if you were hurt," Captain Elyot explained.

"That was kind," said the child, with a sweet, faint smile.

Forgiving her enemies with the words, though quite unconscious that she had any, and too weak to try to understand why the tears came to the eyes of the chaplain's wife, or why the showy young lady who had pressed forward to Captain Elyot's side, should turn away her head.

"Let me stay with you, Mrs. Stubbs," said Mrs. Brown, the chaplain's wife. "I can sit by her if you are called away."

"Thank you, ma'am, but I reckon I can do all that is necessary," Mrs. Stubbs replied in a hard tone.

The grace of forgiveness was not hers, and she remembered that this woman had slighted Blossom. They stole away one after another. The major, even, had pressed into the room to see how it fared with the child, though neither Mrs. Bryce nor Claudia had followed.

"You'll be quite well in the morning," he said kindly, patting her brown curls.

"I am quite well now," Blossom replied. "I think I could sit up."

But Mrs. Stubbs gathered her in her strong arms and bore her off to her bed.

CHAPTER XIII.

"THO' FATHER AN' MITHER AN' A' SHOULD
GAE MAD."

EARLY in the evening Lieutenant Orme crept around to the store. He looked with longing eyes toward the parlor door, but it was not to open for him.

"How is Miss Blossom?" he ventured to ask of Mrs. Stubbs, who stood like a grim image of justice behind the scales.

Thank God! she was not dead, or even desperately ill, or her mother would not be here.

"Blossom?" repeated Mrs. Stubbs, in an unpleasant voice. "She's but poorly, sir."

And she poured out the coffee she had been weighing.

A chill ran through all his bones.

"It was my fault, I know; but you see —"

The boy would have attempted to excuse himself to her,—though no excuse would have set him right in his own eyes,—but

Mrs. Stubbs, tying up the package and giving it into the hands of the purchaser, paid no further attention to him.

"Is there nothing more? Thank you," as she handed back the change, for the sutler's wife was ceremoniously polite within the bounds of her business affairs.

"Could I do anything?" asked the lieutenant in an awed voice, pressing into notice again.

What if she were to die, after all!

"Nothing that I think of now," Mrs. Stubbs replied coldly, moving off and in-trenching herself behind a great ledger which gave her the appearance of having stepped around a corner, and effectually ended the conference.

The boy stole away, heavy-hearted and full of forebodings. If she were to die! He sat down upon the steps outside for a moment. He was too miserable to go back to his quarters. Even Captain Elyot had blamed him,—he felt it, though they had not met since they parted on the ice. And did Blossom also reproach him? Or—and he grew sick, at heart over the vision his fancy called up—did she lie still and white with no thought of him at all—too ill for recollection? He could not bear the suspense or the weight of his fears. He would seek Captain Elyot and beg of him to go and face Mrs. Stubbs, and learn the truth, even if by so doing he received the full measure of his friend's anger for his carelessness.

A half an hour later, Captain Elyot strolled into the store.

"And how is Miss Blossom now?" he inquired cheerfully. "None the worse for her fall, I hope."

"You may just step in an' see for yourself, Cap'n Elyot. She's a bit weak an' trembly yet; but you'll find her in the parlor. She would be brought out; she declared she could walk; but 'Not a foot do you put to the floor this night,' said I. The surgeon says there are no bones broke, but he's a fool at the best, as every one knows. Ah, well, I deserve a broken back myself for being talked into trusting her to that rattle-headed —"

"Don't be hard on Orme. The boy is frightened enough at what has happened. He'll be more careful another time; and, really, it was not entirely his fault. I saw it all, and —"

"Them can risk their lives as choose; but it'll be neither me nor mine," said Mrs. Stubbs in a tone beyond gainsaying.

She shut up her book, with the air of having the lieutenant's head between the covers, and descended from her high seat.

"But you may go on, Cap'n Elyot; I'll follow you presently."

And she proceeded to make everything tidy and fast for the night, while the captain, after a tap and a pause at the parlor door, passed on into the room where he was to find Blossom. A pale, soft light shone through it from a great lamp on the table beside the sofa, and just rising from the sofa, in some kind of a loose, white gown, was Blossom. Was it the pale yellow light or the gown that made her so white?

"Don't let me disturb you; I am sure you had better lie down," Captain Elyot said, tossing his hat upon the floor, and drawing a chair close to her side. "I have come from Lieutenant Orme, which must excuse a rather late call. The poor fellow dared not come himself. I left him tearing his hair over his carelessness."

"Oh, he need not do that," Blossom said quickly; "it was my own fault, and, indeed, there is no harm done. I shall be up to-morrow."

"He heard a most alarming account of you at the store."

"I suppose he didn't see mother."

And Captain Elyot could not contradict her. There fell a moment's silence between the two, with the hush that comes at night-fall—a hush of the spirit as well as of all confused and laborious sounds that fill the working-hours.

Blossom lay back in one corner of the flowered sofa, her cheek against its arm, one hand, with its pink-tipped fingers, just showing below the loose sleeve of her gown as it lay on her knee. How frail and sweet to look at she was this night! It came to him like a revelation that life would hold nothing beautiful or dear to him if those eyes, languidly open now, should close forever,—what it would have been to him if they had never opened again. He bent, with a sudden impulse, and kissed her hand.

"You gave me an awful fright," he said, in a hoarse voice, and with the beating of his heart sounding in his ears.

There was a hand on the door. It opened, and Mrs. Stubbs appeared. Captain Elyot had risen to his feet. His color was heightened, but he stood erect and unabashed.

"Are you going, Cap'n Elyot?" Mrs. Stubbs asked, suspecting nothing.

"Yes; Miss Blossom is tired. I shall look in in the morning," and he began to search about for his hat. "I am glad to have so good a report to carry back to Orme. The poor boy is inclined to take more blame than fairly belongs to him."

"Tell him I am not hurt at all. He must come and see me to-morrow," said Blossom faintly from the sofa.

"You must not be tiring yourself with too many visitors," Mrs. Stubbs interposed.

Evidently the lieutenant was in disgrace with the sutler's widow.

"For one little moment," pleaded Blossom.

But her mother made no reply. She was stirring the fire noisily and setting the room in order. All the peaceful stillness that had hung over the place a moment before now flew up the chimney and away. It was not a paradise any longer, in which, as the young man had thought, one could linger forever. The bustle of every-day life had come back. It was only when he looked at Blossom, pale and sweet and languid in her white gown, with her cheek pressing the flaring roses, that the dream remained.

He had no excuse to linger, but he could not go without a word from her. Would she be angry with him for his presumption? Dear child! Would she know that it was presuming? Somebody should take care of her. Oh, if——

"At least, I may tell the lieutenant you forgive him?" he said interrogatively, addressing Blossom, and stepping directly before the gaudy sofa.

"There is nothing to forgive," she answered in a low voice, while the color flew over her cheeks.

But she did not lift her eyes, or put out her hand when he bade her good-night. And had she forgiven him also? He could not tell, he said to himself. He would see her in the morning. And he found himself humming a gay song—he who had no voice for singing—as he strode across the parade-ground to his quarters, where Orme was waiting for him.

It had been a long half hour to the boy, whose face was fairly haggard with dread.

"Will she die?" he asked in a husky voice.

"Hallo, Orme; not tired of waiting? Have a pipe, man. Why didn't you help yourself? Die? Who could have told you such a story? Why, if you had seen her——"

"And why didn't I see her? It was the

old woman who made me believe I had nearly killed her."

The young lieutenant's voice broke. The strain of anxiety had made him as weak as a girl.

"But I understand it all," he went on. "I've seen it coming for a long while. She's only too glad of an excuse to shut the door against me. They say the truth when they declare she don't want me there, but that you ——"

"What is that?"

The blood flew into Captain Elyot's face; the stem of the pipe snapped between his teeth. Had the gossip of the garrison fastened on him?

"What do they say?" he repeated. "I'll take it all, Orme."

"I talk like a fool, but it's true all the same," Lieutenant Orme replied. "They say the old woman would rather see you with her daughter than me. That's the whole of it, Elyot, on my honor. Gossip, you know; but the Lord's truth. Of course she'd rather you went there than I; and so would Blossom. That's the worst of it," the boy added, with a choke in his voice, dropping his face into his hands.

"You don't mean to say, boy ——"

Captain Elyot's voice was hoarse. He wheeled suddenly round in his chair, tossed his pipe into the fire and regarded his friend.

"How could I help it?" said the lieutenant. "Such a dear little girl, and seeing her day after day! I've been there no end of times when you didn't know it."

"Yes; I suppose so."

"And she seemed always glad to see me, and all that, you know, till sometimes I've thought ——"

"Yes, yes," Captain Elyot said brusquely.

Had he not been going through this same course of reasoning to-night?

"But have you said anything of this to her? You haven't been turning her head, Orme?"

"What do you mean? I'd ask her to marry me to-morrow if I dared. But it's no use."

And the lieutenant fell back into despair again.

"I tell you, Elyot, it—it would be different if it were you," blurted out the boy with something very like a sob.

"Speak of yourself, man," said Captain Elyot coldly. "And that's not the way to be talking about any woman. Consider your own chances. Beyond that, it's no concern of yours."

"But I am thinking of myself," persisted the lieutenant. "Of course I know it is nothing to you, and I wouldn't have said that to any one else. But you have stood by me like—a trump ever since we came over the plains together, and I couldn't keep anything in my heart from you."

"Don't gush," Captain Elyot said, shortly. "What can I do for you, boy?"

"You might help me, if you would, since it is nothing to you. Now, if *you* —"

"Please to consider yourself. I might help you, and so I will; anything in the world."

He had succeeded in making his voice almost hearty and free.

"If you'd—stay away."

"What?"

"If you would stay away till I could try my chance."

"Yes, to be sure;" Captain Elyot answered quietly, hardly knowing what he was saying.

"Not entirely, of course. You'll have to take me round there at first, for Mrs. Stubbs will never let me into the house until she has forgotten this. Even when I have made my peace with her, you must show yourself occasionally, just to keep her in good humor; not staying long at a time, or saying too much to Miss Blossom."

"No, oh no; I suppose you have considered this matter on every side."

"I can't think of anything else."

"As far as it concerns your own happiness. But have you given a thought to how this fancy—I beg your pardon—this—this choice may strike—your father and mother?"

All the vague doubts as to the wisdom of a connection with the Stubbs family took shape, and crowded upon Captain Elyot's mind now. He remembered old Colonel Orme,—the lieutenant's father,—whom, with his elegant wife, he had met a year or two before. How would they look upon Blossom, and, above all, upon Mrs. Stubbs? Surely it was his duty, if not to warn the lieutenant, at least to set this matter before him. I am afraid it was one of those times when duty is an unconscious satisfaction.

"They might stand out at first, but they'd come round."

Young Orme's doubts had faded when thrust into the light.

"She is so sweet, who could resist her?"

Who, indeed! thought Captain Elyot, forgetting to respond aloud, and aware of nothing but that he was being galloped over rough-shod by this heedless boy.

"But the old woman! There's the rub!"

And the lieutenant thrust both hands into what would have been a mass of light curls but for a very close cut of the day before, as he stared with scowling brow at the rough deal table on which his elbows rested.

"I suppose one couldn't kill her! Fancy my mother taking up Mrs. Stubbs! But don't distress yourself, old fellow. Perhaps we could pension her off. There'd be some way to arrange all that. There always is."

And with this cheerful, young philosophy, the conference ended, as Captain Elyot announced his intention of retiring. Without some reminder of the lateness of the hour, Lieutenant Orme would have gone on till morning singing Blossom's praises and balancing his chances. His hopes grew with the sound of his own voice, and he went off at last entirely assured and happy.

"You shall be best man," he exclaimed, thrusting his head in at the door, when he had apparently taken himself away. "And, see here, Elyot," appearing again, "I shall expect you to make it all right with the colonel."

"Get to bed, will you!" roared Captain Elyot at this second interruption. "And mind, boy, I positively decline dwelling upon this subject more than twelve hours out of the twenty-four, vitally interesting though it is; and now off with you!"

And he closed the door and turned the key in the lock.

He had the room to himself, but still he was in no haste to retire. He paced back and forth, smoking one fierce pipe after another, until long after every sound about him was stilled. Once, in passing his open desk, a sealed letter, lying with face upturned, caught his eye. It was the one he had written and never sent to his Uncle Jeremy. He tore it up deliberately before he resumed his march. He was in no mood to-night to bind himself with chains of this old man's welding, though what did it matter what became of him now! The morning, pale and gray-clad, peered into his room before, tired out at last, he went to bed.

He acceded to all his friend had proposed. He took him around to Mrs. Stubbs's domicile, and assisted him to make his peace with that exacting female. Then he staid away faithfully for a fortnight. Even when his visits were resumed, they were at intervals growing longer as the weeks went by. He held firmly to his promise, as a soldier and man of honor should do, he said to

himself, when the light from Blossom's window tempted him in passing the house. The brightness seemed to have dropped out of his life at this time. It was like an illuminated picture with the sun left out. But he kept faithfully to his promise. He was haunted by Blossom's face as he had seen it the night after her fall on the ice—lying against the thornless roses, with its half-shut eyes, its drooping mouth, like a tired child. And again, he thrilled at the thought of the trembling hand he had kissed. She had made no effort to draw it away. She had flushed rosy red. Could he have mistaken the meaning of it all? She was a child, innocent, ignorant of herself, but with the heart of a woman. And had her heart not responded to his in that one instant? He asked himself this again and again,—more frequently perhaps than was quite consistent with the fealty he had sworn to his friend; for he had vowed within himself that he would put all thought of Blossom out of his mind. But the thought of those we love is like ghosts and spirits; bolts nor bars avail against them. And though he saw the girl but seldom now, and rarely without the lieutenant by his side to divide with him her smiles and blushes, the shadow of her innocent self never left him.

The lieutenant, in the meanwhile, vibrated between assurance and despair; and, like a sieve, could hold neither hopes nor fears. Reduced to infinitesimal, tormenting particulars by this filtering, his visits to the Stubbses,—which he had managed to make almost daily again,—Blossom's friendly greeting, her timid ways, her growing charms, were all spread out by the boy before his friend. To listen was like rubbing an inflamed wound, and yet Captain Elyot could not turn his ear away. Unconsciously, while he argued aloud for his friend, or mechanically concurred in the lieutenant's hopes, he was arguing mentally in his own favor, and feeding little by little the flame he honestly intended to extinguish. At times he was tempted to throw up his commission, return to the states, and even submit himself to Uncle Jeremy's wishes. But the last was only the indifference of despair, and this state was never of long continuance. More often, the increasing fascination of Blossom's vicinity, even though he saw her so seldom now, held him to the fort.

The winter was wearing away. There had been no excitement of action, and but little social gayety to make the long, dull days, or still duller evenings, pass more

swiftly; and discontent or indifference to everything—except the card-table, which still held its votaries—was slowly creeping into the garrison, when news came that disturbances had broken out down in the Washita country, with a report that troops were to be sent from Fort Atchison at once to join General Johnston there.

Languor and discontent vanished like a puff of smoke. Anything was better than the mole-life they had been leading for the past three months. Even death is a cup men drink greedily enough with a froth of excitement on the top. And not an officer at the post—unless among the married men, with whom family considerations weighed heavily—but hoped he might be ordered to join the expedition.

The choice fell upon two—Captain Luttrell, whose long service and good judgment in military affairs made him a competent leader, and Lieutenant Orme.

"It's the best chance that could fall to me," said the boy, rushing in upon Captain Elyot to announce the news and talk it over. "If I dawdled the whole winter away here, I should be good for nothing by spring; and I want to be a soldier, first of all," he added, straightening his boyish form, while a faint blush of shy pride showed for a moment on his cheek.

"That's right, old fellow!" said Captain Elyot, laying an affectionate hand upon the young man's shoulder.

Then they were silent. Each knew of whom the other was thinking; but something choked the boy, and Captain Elyot could not bring himself to utter Blossom's name. He was ashamed to feel that his heart had leaped in him when he found that his friend was to go; that the way would be open for him now if he chose to walk in it. He fought it out with himself in that brief moment, while the lieutenant was declaring his ambition. He put self under his feet with a struggle; the boy should have his chance.

"But all the same," he went on. "If you prefer to stay, I fancy I have a little influence at head-quarters, and could persuade the major to let me go in your place. I'm rather rusty with lying by so long," he said carelessly.

"Yes, I thought of that," the boy replied coolly. "I knew you would, and I don't mind telling you that I was tempted at first to stay."

A bright blush glowed all over the young face as he went on:

"But you see, Elyot, I'd better go. I've thought sometimes that she looked on me as a boy; and I want to show her that I'm not afraid of any of it!" he burst out, and, throwing himself down into a chair, he covered his face and sobbed like a girl.

"What must you think of me?" he said, after a moment.

"I think too well of you to want you sent off on a winter campaign like this," Captain Elyot replied under his breath.

He was more moved by the boy's reliance upon him, and the confidence he felt himself but half to deserve, than he chose to show.

"You'd better let me try for your place," he said aloud. "Nobody would be the wiser; and I'm used to it. It would only be play to me,"—though he knew full well that the only play would be cold and fighting, and perhaps death. "Come, say the word, and I'll go up to head-quarters at once."

But the lieutenant refused.

"I should feel like a coward. Besides, I've been waiting for something like this. I could speak to her perhaps if I knew I were going away. Suppose we go down there now? She can't have heard it so soon. I believe I would like to tell her myself."

"Then you don't want me?" said Captain Elyot hastily, pleading an engagement and hurrying away from his friend.

He believed that the lieutenant was about to try his fate, and he could not sit quietly and wait to know the result. He started off upon a solitary walk, conscious that renunciation leaves a bitter taste in the mouth. He had done his duty; he had behaved as a man of honor should do, but he was neither glad nor at peace with himself.

But the lieutenant had no intention of declaring his feelings to Blossom at once unless some particularly fortunate chance should occur. He would tell her, first, that he was to go away, and watch the effect of these tidings upon her. He had read of girls who trembled and turned pale when their lovers were sent into danger and possible death. Would she thus unconsciously declare her tender interest in him? If she did, he would assure her that he should hold his life as something precious indeed, since she valued it.

He burned with excitement as he hastened toward the sutler's quarters, while he planned all this scene in his mind, giving to it the happiest termination. It was too wonderful to be true! And yet it had been realized for others; might it not be for him?

But Blossom did not tremble, nor did the pretty color leave her face. She had heard the news before he reached her, and opened the subject herself.

"So you are going away!" she said; "and down into that dreadful country where the Indians are murdering the women and children!"

She did shudder as she spoke, and her face may have paled, for there came to her a recollection, vivid and piercing, of that one time of horror in her own life not many months past. This was not the emotion Orme had hoped for. It had little to do with himself, the lieutenant felt, and his heart suddenly dragged like an anchor wrenched from its hold. But despair catches at straws. Might it not have been different if she had been alone? There sat Mrs. Stubbs, prim, black and silent, with some stiff, ugly knitting in her hand, casting a shadow over the whole bright room lying open to the winter sunlight.

"I hope you'll think of us sometimes, Miss Blossom," said Orme, twirling his cap, and forgetting all the fine things he hoped to say.

In spite of his efforts at self-command, the tears would rush into his eyes. Blossom did not see them. He could not have borne that humiliation; but she was struck by the dejected air of her friend and was truly distressed over his departure.

"I shall think of you a great many times; every day, and—and more," she replied. "Indeed, I shall miss you more than I can say."

And there was a catch in the voice which suddenly ceased. I am not sure that a scene would not have ensued but for Mrs. Stubbs's presence, though hardly of so tender a nature as the boy had pictured to himself. As it was, Mrs. Stubbs thought it time to interfere. She had not left the store and donned a clean apron at this hour of the day to have this young man make love to her daughter before her eyes.

"You'll soon be coming back," she broke in, warning wonderfully, to all appearance, toward the young man, and speaking in a cheery voice, for which Blossom blessed her in her heart. All her hopeful words of encouragement were drowned in a sea of tears, welling behind her eyes at the moment.

"It won't be long before you an' Blossom 'll be singing your pretty songs again, I'll warrant ye."

"But not with my leave or consent," she added, to herself. There had been folly

enough already, she thought, watching the boy's changing countenance, which any one might read. She blessed her stars that she had left her work and taken up her position in the parlor, anticipating some such visit as this. It had been inconvenient, and at the time seemed almost impossible. Officers of distinction from other posts were here on their way south. They were to leave with the detachment from Fort Atchison early the next morning, and the ladies, perhaps to banish dismal thoughts, had planned a ball for this night. The band were blowing themselves faint in preparation for so unusual an event. The store had been ransacked, and Mrs. Stubbs driven wild by the impossible demands upon her. And in the midst of it all, she had taken up her position in her own parlor as though she had nothing to do but complete the endless round of the ugly blue stocking in her hand.

At this moment a summons came to her from the store.

"Well, good luck t' ye, and you must tell us all about it when you come back," she said with a cheerful air of dismissal, rolling up her work and waiting for the young man to take his leave.

And was it to end like this? Was he not to see Blossom again? The woman's rough, cheerful, parting words went on in his ears, and still he did not rise, or offer to make reply. He was struck dumb and motionless. It had all proved so different from his dream. At last, by an effort, he got upon his feet. Some suspicion of Mrs. Stubbs's scheming had struggled in upon his mind and gave him strength. "But I shall see you again before we set off." Then like a ray of light out of the darkness a thought crossed his mind. "I shall see you to-night," he said hastily. "Surely, Miss Blossom, you will be at the ball?"

Blossom looked to her mother, her face flushed and glowing with sudden heat. Oh, if she could, if it were possible that this unknown delight were in store for her! The boy did not notice how soon she had forgotten his going away. He was intent only upon his hope of seeing her once more; of having an opportunity to whisper one tender word in her ear.

Mrs. Stubbs hesitated. But why should she deny the child the sight, the like of which would not occur again for a long time. And yet she shrank from putting herself forward, from thrusting herself into a company where she knew she would be unwelcome. Still if she refused might not

this boy haunt the house and even obtain entrance in her absence. There was safety in a crowd. And then Captain Elyot would be there. He had absented himself of late, in a way that both puzzled and annoyed the woman. Were her schemes to be foiled after all?

"Blossom could not go alone," she began, revolving the matter in her mind.

"If I might——" suggested the lieutenant eagerly. But he checked himself, for he saw that he had made a mistake. "Come yourself, Mrs. Stubbs," he said, as cordially as he could, considering that he did not in the least desire her presence. "You'll enjoy looking on. Everybody is to be there."

"We might look in for a while," the woman said doubtfully.

"Do, Mrs. Stubbs, mind that you come now; I'll be on the watch for you. And I wont say good-bye or take any of your good wishes, since we are to meet again;" and the lieutenant went off in high spirits to report his success to his friend, sure, from the remembrance of Blossom's glowing face as he turned away from the door, that it needed but one undisturbed moment by her side to make him entirely happy.

CHAPTER XIV.

THE BALL.

THE festivities were well under way before Mrs. Stubbs and Blossom approached the ball-room. The woman could fight, both for her daughter and herself, valiantly and victoriously, upon her own ground; but to appear here was like carrying the war into Africa. To put oneself deliberately into an unwelcome position can never be agreeable, even to the most calloused feelings; and Mrs. Stubbs's sensibilities had become more and more acute each day as she fancied herself browbeaten and "put upon," as she expressed it to herself. She was rich, *rich*; day and night this rang in her inner ears like a call to worship, yet no one came to bow down before her. She was astonished at the extent of her wealth. Stubbs had been a careful man, a man not given to boasting, even in the presence of his own wife; and though she knew that each visit to the states augmented the store laid by there against future need, she did not dream of its having reached the sum she found it to be when death revealed all of Stubbs's secrets. It seemed limitless to her, as she fingered notes and bonds and deeds. She regarded herself with awe as the possessor

of all this wealth. Why did not others give her the reverence she bestowed upon herself? And what was it that held her back from taking her place with the best of them? Was it the store? A few weeks, or months at most, would put that out of her hands. But even this thought failed to assure her. Strive as she might, she could never be like the others; this she knew deep down in her heart. Theirs had been a life of ease and of gentle associations, while hers had been one of hardship and work and rough ways. Each had left an ineffaceable mark: even gold would not rub it out. But the child—and then she came back to Blossom, who was the Rome to which all the roads of her fancy lead. Blossom would yet be a lady; it might be when she was dead and out of the way; and death sometimes seemed a boon to the woman.

They were in the dressing-room and Mrs. Stubbs was laying aside her coarse heavy shawl as these thoughts flew through her mind. There was their nest indeed, to which they constantly returned. There they multiplied and brooded and filled her with dark fancies like uneasy wings. There was a cold sensation about her heart as she smoothed down her hair. How they would stare at her and wonder why she had come here!

"We'll not be long, you'll soon see enough of it," she said to Blossom, pulling out the somber folds of her stiff black gown, and trying to hide the nervousness which nearly overcame her. She had regarded appearances so far as to assume her best gown, but this was the only concession she had made to the occasion. Her hard bony hands were uncovered, her dark hair streaked with gray was brushed plainly down on either side the face, fast losing its comeliness. No fold of crape or shred of softening lace concealed it. There had been no attempt to make herself fine.

The bewitching sound of horns and bugles, with the patter of feet and the slide of silk over the floor, came out to meet them through the open door.

"Oh, how beautiful it is!" cried happy Blossom, peeping in. She neither hoped nor feared anything. She was only wild with excitement over the little glimpse of glory she had caught through the open door. Never for a moment did she dream of the faintness at the heart of the woman who waited in silence for her to slip out of her cloak and shake out her pretty white gown. She had worn it last—caught here

and there with roses—at some school festival in the east. The roses had been replaced by knots of velvet, though one white bud was caught now in her curls. But her cheeks were roses—blush roses—and her eyes were gems and she needed nothing more for adornment, when she had thrown a little white cloak over her pretty bare shoulders and followed her mother into fairy-land.

And a very prosaic fairy-land it was, to one without the glamour of youth over his eyes,—ornamented with strips of bunting and of light-colored cambric, every yard of which had passed through Mrs. Stubbs's own hands. Somewhat cold too. Blossom drew the cloak closer about her throat as she looked around her with innocent, eager eyes. The trumpets shrieked, the cymbals clashed and the drums rolled in between. They were silenced as the dance ended. The dancers dispersed to find seats, or promenade slowly up and down the long room. But it was fairy-land, nevertheless, to Blossom, with its bright lights (Mrs. Stubbs's own candles, if the truth were told), the music beginning to rise again softly, the gay uniforms and gleaming gowns floating by. The girl had never seen anything half so dazzling before.

They could not have chosen a more fortunate moment for their entrance. They found seats near the door as the dance broke up, and for a time, escaped notice. But Blossom was quite too pretty to have this oblivion continue long. One and another of the strangers began to observe her.

"I say, Miss Bryce, who is that little girl?" asked a young captain, elegant, indolent but curious, and one of the visitors at the post.

Claudia stared, could not believe her eyes, stared again, using her eyeglass this time.

"What impertinence!" she exclaimed aloud, forgetting her interlocutor, and turning to whisper her indignation into the ear of the friend at her side.

"Who is she, Orme?" persisted the young man, seizing the lieutenant by the arm as he hastened by, evidently in search of some one. "And see here, Orme, let me give you a word of advice," as he led him away; "don't ever be such a fool as to ask about one woman of another. You should have seen the major's daughter just now."

"Who is she?" repeated the lieutenant, whose eyes were searching the room while he only half caught the words addressed to him. "The major's daughter? Why, man, you were talking with her as I came up."

"Nonsense; who is that pretty little thing down by the door with the black bat beside her?"

"Why there she is now!" exclaimed the lieutenant as his eye followed his friend's and lit upon Blossom, and twisting his arm free he darted down the room to her.

"When did you come in? I've been looking out for you the last hour. Confounded draft from that door! Let me find you another seat, and Miss Blossom, they're forming a cotillion, will you accept the most awkward partner in the room? I'm awfully stupid, but think I could get you through."

"We're only looking on, Blossom and me," Mrs. Stubbs interposed in confusion, drawing back stiffly.

"But surely she might be permitted one dance," urged the lieutenant. His chances for a word with the girl were slight indeed if her mother was to hold her by her side all the evening after this manner.

"I—I would rather stay here," Blossom answered shyly, shrinking from a stare of overbold admiration as Captain Luttrell swaggered by. She had longed to dance, but her courage failed when the opportunity came. "But don't let us keep you here," she went on, as Orme settled into a seat.

"Oh, I never dance when I can help it," the boy replied frankly; "besides, we're to hang back to-night, you know, and give the other fellows a chance. And by the way," as a sudden recollection crossed his mind, "one of them was inquiring you out a moment ago. First-rate fellow—captain in the Sixth Infantry—know all about his family—may I bring him up, Mrs. Stubbs?"

It was an exercise of self-denial on the part of the young man and he almost hoped Mrs. Stubbs would refuse. But no, she consented at once, and he went off in search of his friend. He found him hanging upon the skirts of the major's party.

"Beg pardon for leaving you so abruptly," the lieutenant said, "but the truth is, I was looking for her myself. I'll introduce you now."

"Thanks; but believe I don't care about it," was the reply with a shrug of the shoulders as the young man turned away. "She's the sutler's daughter, isn't she?"

"She's the prettiest girl here and the best of them all, and any one who says —"

"Don't excite yourself, Orme," said the other one coldly. "She's a pattern of the virtues, I don't doubt, and pretty enough I'll admit; but the truth is I've engaged Miss Bryce for this dance, and if you would be

so obliging, my dear fellow, as to permit me to pass." For Orme, heated and almost menacing, stood directly in his path.

The music had struck up, and the dancers hastening to their places jostled him on every side.

Miss Bryce, sweeping by, gave him a disapproving glance with her cool bow. She had not overheard his words, but she had marked his quarrelsome attitude and flushed face, and decided in her own mind that the lieutenant had been drinking, early in the evening though it was. It was disgraceful that the young men should do so. It had grown up from "Stubbs's," and it would be a blessing to the post if the whole pestilent family were removed. To think that the woman should actually force herself and her daughter upon them here!

Lieutenant Orme took himself out of the way of the dancers, he hardly knew how, and in a quiet corner strove to compose himself before returning to Blossom and her mother. There was no one among them all worthy to stand beside her, he thought loyally, even though they chose to despise her. And how pretty she was! I am afraid Blossom's face went a long way toward attaching her friends to her. He staid away until he began to fear they would wonder over his absence. Then he went back to them, very sore and a good deal ashamed for his friend, with a shame which seemed to react upon himself.

"He was engaged. I couldn't bring him," he stammered; for Mrs. Stubbs's sharp eyes seemed to pierce through him and see into his very soul. He felt that she more than half suspected the truth, and the excuse he had prepared to offer slipped out of his mind. "It's lucky for me; that is, if you'll let me stay here." He took the vacant seat by Mrs. Stubbs's side, and tried manfully in the occasional lulls of sound to interest and amuse his companions. Claudia Bryce, whirling past them, threw an icy glance upon Blossom, in which was no recognition, her companion staring fixedly over the heads of the party; girls neither so young nor half so sweet of face kept time to the music and brushed poor little Blossom's white gown. She alone of all the young ladies in the room played the part of wall-flower,—a charming wall-flower,—mignonette, sweet pea, daffodil at least, but a wall-flower nevertheless.

More than one pair of admiring eyes had sought her out in this half hour before supper; but Claudia's scorn of the girl and

indignation at her intrusion, as she called it, had been evident to all and no one of the gallants was brave enough to approach her in the very face of the major's daughter. But all these arrows of scorn, sharp though they were, glanced off the head of the unconscious girl. It was the mother who took them into the quiver of her heart.

The couples began to move toward the supper-room as the dance ended and the music changed. The young captain who had scorned Blossom threw a quizzical glance toward Lieutenant Orme. Would Orme lead the bat and her charge in to supper? It was a question, the boy had asked of himself. He would have been only too happy to devote himself to the daughter, had she been unattended. But every chivalric emotion within him was aroused now, and he would hardly have hesitated to lead Mrs. Stubbs alone down the floor.

"They are going out to supper. We may as well follow," he said heroically, but with the most indifferent air he could assume. Already the room was half deserted. But Mrs. Stubbs refused.

"I'll have none of their supper," she said in a harsh voice which attracted the ear of more than one passing by, and gave an unpleasant prominence to the odd party. Something of the fire that burned within her flashed out of her eyes as she settled herself in her seat with an air of defiance. She had been sharp enough to see that every one avoided them, and to know that Lieutenant Orme's friend had not cared for Blossom's acquaintance or he would have sought her out. But she had overcome her first impulse to leave. Did they think to drive her away? She would see it out with the others. She would stay to the last, despite their sneers. But it was a passive resistance. She could hold her ground, but she shrank from advancing.

"Blossom may go if she has a mind to," she said, relenting a little. "You'll have a care over her?" she added, almost drawing back from the permission so unexpectedly granted. Might not some of these fine ladies say something to wound the child?

"Trust her to me; I'll bring her back in half an hour," said the delighted boy, leading her hurriedly away lest Mrs. Stubbs should recall her consent. "Now give me your fan and handkerchief and we'll have a jolly time," said he, taking possession of both. He tucked her dexterously into a corner behind Mrs. Bryce's broad back, which, as it was never once turned, made an

ample and convenient shield and screen. One would have thought her the seven-headed monster instead of a rather delicate young girl, to see the way the boy loaded her plate until the contents ran over into her lap, and even then urged more upon her.

He had lost the self-consciousness which had made him dumb in her presence when he paid his visit to her earlier in the day. Now was the time to utter the few words he had been longing to speak, and yet a most inauspicious time. How could he talk of love, of undying affection with the rattling of plates and glasses in his ears? Men have done it, but at a fearful risk, and with Mrs. Bryce's shoulder so dangerously near, the lieutenant dared not make the attempt. He persuaded her to take a short promenade before returning to her mother, who sat, silent and grim, and almost the only occupant of the ball-room, like the unbidden old fairy who always cast a shadow over the feasts in the fairy stories.

The heart of the boy thumped fast and loud under his vest. I am not sure that it would not have escaped entirely but for the many buttons which held it in. Ah, now was his opportunity. The music fell low and sweet and beguiling, the candles had burned down, until they shed a less garish light than at first, and as he led her away to a part of the room where they were somewhat screened from Mrs. Stubbs's sharp eyes, beginning already to search for her, the boy thought it the happiest moment of his life. A joy just about to be snatched away, a pleasure ours for the moment, with the consciousness that it is as evanescent as sweet,—what can be more intoxicating? He forgot to talk to her, it was pleasure enough to feel the faint pressure of her hand upon his arm as their feet kept time to the music. He forgot that he was to go away into danger, possibly to death, or perhaps the unconscious knowledge of this made the present moment more dear. The room was filling again. After all it was a brief joy. Miss Laud hastening by to join the dance broke the spell.

"Oh, you monopolize Lieutenant Orme. That will never do," she said with a good-natured smile, since Claudia was not by to hear.

Poor Blossom was not used to such badinage. She took it in serious earnest.

"We—we had better go back," she said, striving to draw away the hand that had rested with the weight of a rose-leaf on the boy's blue sleeve.

But he would not let it go.

"It is I who have taken possession of her," he said clumsily, "and we wont go back just yet," to Blossom, as Miss Laud passed out of hearing. "Don't mind her, she is always saying things," he added angrily.

"But I have kept you from the others."

"What do I care for the others? I had rather be with you than with any of them. I would rather be with you than with anybody else in the world," he went on hotly.

It was out at last. Not as he had intended it, but he had spoken the words that would bring him joy or pain, he knew as soon as he had uttered them, and he waited with a stifled feeling at his heart for her to reply. But she was silent now. Could it be possible that she understood and was too shy to

make response? For an instant he was dizzy with joy. It turned his brain.

"Oh, Blossom!" he began, ready to pour out all his love. Then he looked at her, and the earth suddenly stood still, and the room grew dark, for she was not listening to him at all. She was following with her eyes a figure just advancing through the door-way, and in a moment as he recognized Captain Elyot, Orme knew that it was all over with him. He felt at this moment that he had known it from the first and that he never had had any hope.

"Hullo, there's Elyot," he said quietly, for a strange calm, like the numbness after a hurt, had fallen on him. "Suppose we go back;" and he took her to her mother.

(To be continued.)

OFF ROUGH POINT.

We sat at twilight nigh the sea,
The fog hung gray and weird.
Through the thick film uncannily
The broken moon appeared.

We heard the billows crack and plunge,
We saw nor waves nor ships.
Earth sucked the vapors like a sponge,
The salt spray wet our lips.

Closer the woof of white mist drew,
Before, behind, beside.
How could that phantom moon break through,
Above that shrouded tide?

The roaring waters filled the ear,
A white blank foiled the sight.
Close-gathering shadows near, more near,
Brought the blind, awful night.

O friends who passed unseen, unknown!
O dashing, troubled sea!
Still stand we on a rock alone,
Walled round by mystery.

RECALLINGS FROM A PUBLIC LIFE.

WESTERN PEOPLE AND POLITICIANS FORTY YEARS AGO.

In the autumn of 1834 I was returned member from Posey County to the legislature of Indiana, and was twice re-elected for the succeeding years. The manner in which, during these primitive days, I was first invited to become a candidate struck me at the time as whimsical enough, and I recall it still with a smile.

Squire Zach Wade, farmer and justice of the peace, tall, lank and hardy, illiterate but shrewd and plain-spoken, inhabitant of a rude but commodious log-cabin in the woods, and making a scanty living by selling Indian corn at eight cents a bushel, and pork at two dollars a hundred,—eked out by an occasional dollar when a young couple presented themselves to be married,—called on me one morning during the spring of the above year.

"Mr. Owen," said the squire, "the neighbors have been talkin' matters over, and we've concluded to ask you to be our candidate for the legislature this season."

"Squire," said I, "I think you can do better."

"How so?"

"Because I am a foreigner. It is not nine years yet since I left the old country."

"Any how, you're an American citizen."

"Yes, an adopted one. But my birth-place will be sure to be brought up against me."

"Well, it oughtn't to. A man isn't a horse, if he was born in a stable."

I was very proud of my country:

"Caledonia, stern and wild,
Fit nurse for a poetic child."

But I had been long enough in the West to take the homely simile in good part, as it was doubtless intended. Nor, seeing that the squire was a Hard-shell Baptist in good standing, did I suspect any inkling of irreverence in the allusion. I am quite sure the good man, when he spoke, did not, for a moment, reflect who *was* born in a stable and cradled in a manger, though it flashed across my own mind at the time. He spoke without guile, in good faith, and I replied in the same tone, thanking him for his preference, and promising an answer in a few days.

I may mention here, as illustrative of the

style of thought and of idiomatic expression among the simple people with whom I had made my home, an incident of a later date, when I was in the field for Congress against George Proffit. It was in a rustic portion of the district; and after we had spoken, I had been invited, as usual, to spend the night at a neighboring farmer's. Happening to sit, during the evening, on my host's front porch, I overheard, from just round the corner of the cabin, the conversation of two men who did not suppose I was within ear-shot. Their talk was, as usual, of the candidates.

"Did you hear Owen speak?" asked one.

"Yes," said the other, "I hearn him."

"Now, aint he a hoss?" was the next question.

"Well, yes; they're both blooded nags. They make a very pretty race."

Franklin declared that he preferred the turkey to the eagle, on our national escutcheon, as being the more honest and civil bird. Why may not the generous horse, the farmer's main-stay and most efficient aid, be emblem of force and spirit, in contradistinction to the ass, representative of sluggishness and obstinacy?

Yet these and a hundred other similar incidents, provoking a good-natured smile, are but ripples on the surface of the Western character. I gradually came to know that, beneath these trivial eccentricities, there lay concealed, as in the depths of the ocean, things rare and valuable. Twelve years after I had accepted Squire Wade's invitation to enter public life, I had occasion, during the debate in Congress on the bill organizing the Smithsonian Institution, to speak as I felt, of the people among whom, during these twelve years, my lot had been cast. Finding now, after thirty years' farther experience, nothing to change in that brief estimate, I shall be pardoned, perhaps, if I introduce it here.

"I have sojourned among the laborers of England; I have visited amid their vineyards the peasantry of France; I have dwelt for years among the hardy mountaineers of Switzerland; I have seen, and conversed, and sat down in their cottages with them all. I have found often among them simple goodness; ignorance, oppression, cannot trample out that. I have witnessed patience under hopeless toil, resignation beneath grievous wrongs; I have met with civility, kindness, a cheerful smile, and a ready wel-

come. But the spirit of the man was not there,—the spirit that can lift up the brow with a noble confidence and feel that, while it is no man's master neither is it any man's slave. Between them and the favorite of propitious fortune, one felt—they felt—that there was a great gulf fixed, broad, impassable.

"Far other is it even in the lowliest cabin of our frontier West. It is an equal you meet there; an equal in political rights; one to whom honors and office, even the highest, are as open as to yourself. You feel that it is an equal. The tone in which hospitality is tendered to you, humble though means and forms may be, reminds you of it. The conversation, running over the great subjects of the day, branching off perhaps to questions of constitutional right, or even of international law, assures you of it. I have heard in many a backwoods cabin, lighted only by the blazing log-heap, arguments on government, views of national policy, judgments of men and things that, for sound sense and practical shrewdness, would not disgrace any legislative body upon earth."

There was in those times one Western trait that is not to be met with in like manner to-day, a falling off, however, which is due to change of circumstances rather than of character. The early settler was Arabian in his hospitality. Houses of entertainment were infrequent; the farmer was often comparatively isolated, and, though scant of cash, he had usually enough, and to spare, of plain provision for man and beast. Thus, as a general rule, the chance traveler found welcome and shelter for himself and horse, if he knocked at any door which he chanced to approach toward night-fall. Payment, commonly offered, was almost always declined.

"What do I owe you?" I asked a farmer, to whom I was indebted for a comfortable supper and breakfast, and plentiful provision for the animal I rode.

"Well," he replied with a smile, "I haven't time this morning to make out the bill; but I'll tell you how you can pay it. Promise me that if you ever come within striking distance of my little place again, you'll give me a call, so we can have another good long talk together."

The only hesitation seemed to be when they feared the stranger might be dissatisfied with such fare as they could offer. On one occasion I encountered a tempestuous snow-storm during a horseback journey to Indianapolis to attend an eighth of January celebration, and, espying a decent-looking double log-cabin, I resolved to seek shelter there.

"Can I put up with you to-night, madam?" I asked a patient-looking woman, who came to the door at my call.

"Well," she said, hesitating, "it don't seem like a body should turn a stranger from

the door on a night like this, but we aint fixed to keep travelers. We haint got no meat in the house."

The snow was drifting right in my face, and it was getting colder every minute.

"Have you bread and butter and tea?" I asked.

"No tea, but coffee, and plenty of bread and butter, and eggs, of course."

"I don't want better fare than that," said I, about to dismount.

"But *he* aint at home," she objected, "and there's nobody to take your critter."

"Never mind. You expect him soon?"

"Within an hour, I guess."

"All right. I can take care of my own horse."

In the stable I found corn, fodder and prairie hay in abundance; and I had fed and curried my horse before *he* came back. When I returned to the house, my hostess renewed her apologies.

"I most wish I hadn't let you stay. I know we haint nothing to give you like what you've been used to at home."

I repeated my assurances that I should be quite satisfied with what she had. Then, happening to cast my eye around the room:

"Madam," said I, "I thought you said you had no meat in the house; but surely these are prairie-fowls," pointing to three or four that hung against the wall.

"Oh, sir," said she, "would you eat a prairie-fowl? Then I can make you out a supper."

"Pray," I asked, "what made you suppose that I disliked prairie-fowl?"

"Ah," she replied, "if you had had them morning, noon and night as we have, you wouldn't wonder. We can shoot them, most any day, in our barn-yard; but it's all right."

And so it was. *He* made his appearance in time for supper. The broiled prairie-fowl was done to a wish; the bread was excellent, the coffee fair with rich cream, and the butter and eggs unexceptionable. I have seldom eaten a better supper with better appetite, if it was in a house where there was no meat to be had. My hostess felt quite at her ease when I explained to her that I lived in a heavily timbered part of the country, in which prairie fowls were not to be had for the shooting, and where, in consequence, they were valued as a rarity.

I did not think it necessary to add that if the "meat," of which she deplored the absence, had been forthcoming, so that she

could have offered me (as she doubtless would instead of the worthless bird) a mess of fat pork swimming in grease, as a dish which one need not be ashamed to set before any one, nothing but sheer politeness would have induced me to touch it. Such an avowal might have set the good woman to wondering in what uncivilized portion of the world I had been born and bred.

CONSERVATIVE ELEMENTS AMONG THE PEOPLE.

PASSING to matters of greater moment, I perceived among the larger and better portion of these people conservative elements which are wont to be overlooked by eminent statesmen in transatlantic monarchies who prophesy, plausibly enough, as Macaulay, in a recently published letter, has done,* that "institutions purely democratic must, sooner or later, destroy liberty or civilization, or both"—civilization, when, in times of severe distress, the poor, urged by demagogues to spoliation, plunder the rich; or else liberty, if order and prosperity are saved by a strong military government. During some such critical season, he predicts, our government "will be wholly unable to restrain a distressed and discontented majority."

The conservative element to which I chiefly allude is the law-abiding spirit which I found prevailing among the agricultural masses, resting on a solid foundation, too. They had the pride of ownership in their country's institutions; it was *our* laws, *our* constitution. The legal provisions which protect property and order were felt to have been freely adopted, not forced upon them. For these they had not the fear felt by the governed subject, but the affection of parents for their offspring. Such sentiments are unknown among the peasantry of European monarchies.

Then, too, most of them, if only in a small way, were land-owners,—a situation tending greatly to allay the dangerous jealousy between labor and capital.

Aside from this, their regular, unexciting occupation tended to tranquillity of mind, and a disposition to listen dispassionately when addressed in public. If, in a political harangue to a popular audience in any of our large cities, there be introduced an appeal to passion or prejudice, the hearers begin to yawn; they need a Mark Antony to rouse them. But on a hundred occasions I have addressed, and heard others

address, to crowds of hard-working men grouped under the forest shade, calm, deliberate arguments, lightened now and then, it may be, by a few homely anecdotes in point,—arguments which were listened to with Indian quietude and courtesy, and with eyes riveted on the speaker, with sober applause or laughter, now and then, but no sign of weariness, and not one boisterous token of dissent. Such a class of men, unlettered and not given to suspicion, may, for the time, be stirred by demagogical sophistry or misled by falsehood as to facts, but they can be steadied and guided in the end by a logical appeal to reason and common sense. They will furnish, with rare exceptions, no incendiary material that may be fired in the event of an intestine rebellion against law and order.

Despite Macaulay's forebodings, then, I feel assured that, in case of any such national crisis, we may securely fall back on the inhabitants of our rural districts as far more efficient antagonists of anarchy than any military force which despot ever brought together. I speak here of the West and North. The Southern element is a more dangerous one to deal with, complicated as it is with aristocratic trendings and antipathy of races.

HABITS OF THE PEOPLE.

AMONG these people there were few serious crimes. During a forty years' residence among them I never locked an outside door nor barred a window, often leaving plate or other valuables wholly exposed, yet no thief ever entered my premises. Another class of offenses were very infrequent,—those which invade the domestic circle. Elopements did not occur. In our village or surrounding neighborhood I do not recall a single instance of violence caused by marital jealousy, nor, during my long term of residence, more than three or four cases of illegitimacy.

But every medal has its reverse. Two-thirds of the crimes and offenses which did occur in what was then a frontier country had their origin in a vice which prevailed to a lamentable extent—intemperance. It is a vice which has since materially diminished, and at this day is disreputable; in those times it was shameless. The drunkard was indulgently spoken of as a good fellow, or excused as nobody's enemy but his own. If he kept out of lawless brawls he did not lose caste among his fellows.

At political gatherings and on election

* Letter of May 23, 1857, to H. S. Randall, author of a biography of Thomas Jefferson.

days, drinking was the rule, and that habitually, to a certain extent, at the expense of the candidate. The chances of success were small in the case of any aspirant for office if he acted on his conviction that such a custom was more honored in the breach than in the observance. His conduct would not be ascribed to principle, but was sure to be set down as proof of a pharisaical pride, or else of a mean parsimony that grudged a few dollars to be spent in hospitable entertainment of friends.

Our family was brought up in strictest principles of temperance, from which none of its members, so far as I know, has ever been tempted to deviate, in his own person. I wish I were able to add that, as candidate for a seat in the legislature, I was as scrupulous in the case of others as in my own. I remained unconvinced, indeed, by the sophistry of Squire Wade and his friends when they sought to persuade me that there would be the same amount of liquor drank whether I paid for part of it or not. But when they added, what was probably true, that if I held out I should lose my election, I did what I have often since repented, weakly consenting that my leading political friends might act for me in the premises, and of course paying the bills when presented. I have no apology for this, and can only plead, in mitigation of censure, that I sought office in those days, not for aggrandizement, but because I had some favorite reforms which I hoped to aid in carrying out.

THE BEGINNING OF A REFORM.

SOME weeks before I accepted Squire Wade's invitation, an incident occurred in our little village of New Harmony, fitted to stir in any generous mind sympathy and indignation. Two worthless young fellows from Kentucky who had recently married sisters, the daughters of a well-to-do farmer of that state, bringing their brides to the village, persuaded them, on the plea of economy, to occupy a cabin about a mile in the country until, as they said, a Wabash boat should pass by,—the girls leaving behind them five or six ponderous boxes containing numerous substantial articles of home manufacture, bed and table linen, towelings, coverlets, blankets and the like, together with a large stock of domestic clothing: all, as we afterward learned, the product of years of industry and saving, such as thriving farmers' daughters, in those days, were wont to lay by as a marriage portion. Next day the scoundrels, opening their wives'

boxes, sold off at auction every article they contained, and absconded with the money the night following, leaving the poor girls desolate and penniless in their solitary cabin.

I ascertained next morning that the sale had taken place entirely without the knowledge or consent of the victims, and I still remember the hot impulse that prompted me to get together a *posse*, mounted and armed, and go in pursuit of the villains; but no magistrate would grant us a writ for their arrest. How could he? I found that, by the law of Indiana, the property sold belonged not to the woman of whose labor it was the product, but to the scamps who had entrapped and deserted them. There was no remedy except to raise by subscription, as we did, a sum sufficient to send them back to their Kentucky home.

But then and there I made a vow, since kept, that if I ever had the chance and the power to change a law working results so iniquitous, I would not cease effort till I had procured its repeal. I did not then imagine that more than a sixth of a century was to elapse before, after repeated trials, I was successful.

LEGISLATIVE JOKES.

LIKE most of my colleagues who lived in remote portions of the state, I traveled on horseback to attend the legislature; part of the way along bridle-paths, sometimes swimming creeks, or, if we were fortunate enough to find a canoe, depositing therein saddles and saddle-bags, and trailing our horses swimming behind. A trunk for those who indulged in such a luxury was sent on by a carrier.

The legislature was composed chiefly of farmers, plain, honest, genial men, with a few sharp-witted lawyers and other professionals often taking prominent parts. Now and then I could not forbear a smile at the ignorance, especially in common facts in science, that sometimes peeped out. The hall in which we met being often irregularly heated by two large cast-iron stoves, my friend, Chris. Graham, member from Warwick County, moved that the door-keeper be authorized to buy two thermometers so that an even temperature might be maintained. Thereupon an old farmer from a remote county objected. He did not know, he said, just what sort of machines the gentleman wanted to keep us warm; but these out-of-the-way patent contrivances were always expensive, and he supposed it would need a man to attend to each and

keep it in order; for his part, a stove, or—what he liked much better—a big wood-fire, was good enough for him.

But if science was not adequately represented among us, sound judgment in many practical matters and an earnest sense of duty were. The venality which now stains so many of our legislative bodies was unknown. Economy, occasionally degenerating into parsimony, was practiced, and I am very sure that no member went home richer than he came except by what he may have saved out of three dollars a day after paying expenses. And they were a lively, genial body in their way. Nothing took better with them than a merry story or a practical joke. Of the latter, one instance came very near having a serious result.

It was toward the close of the session, when we were waiting to receive bills from the senate, with little else to do meanwhile. Several young ladies of my acquaintance came into the speaker's lobby, where I then happened to be. One of them told me that, a few evenings before, Mr. Cutter, a young member, had made to them a solemn promise that he would introduce a bill taxing old bachelors, and that they had come to see that he kept his word; would I please tell him so? I did her bidding, of course.

Now, G. W. Cutter was our poet, and one of no mean order; author of the celebrated "Song of Steam," beginning:

"Harness me down with your iron bands,
Be sure of your curb and rein:
For I scorn the power of your puny hands,
As the tempest scorns a chain.
How I laughed, as I lay concealed from sight,
For many a countless hour,
At the childish boast of human might,
And the pride of human power!"—

a poem which "Blackwood," not overprone to commend American literature, pronounced to be "the best lyric of the century." Its author afterward married the well-known actress, Mrs. Drake, many years his senior.

When I delivered to him the message from the young ladies, he was at first inclined to shirk the matter; but when encouraged to go through with it, he drew up a bill at once providing that on every bachelor over the age of thirty there be imposed an annual tax of ten dollars, the amount to go to the school fund. I suggested an amendment which he incorporated in his bill, thus: "Provided that if such bachelor shall make it appear to the satisfaction of the court doing county business that

he has twice offered marriage and been twice refused, he shall be exempted from said tax."

Then I posted the speaker as to what we had on hand, and he recognized Cutter as soon as he rose. The rules were suspended and the bill was read twice. Thereupon we had a jovial debate, interspersed with all manner of gibes against bachelors. One speaker opposed the bill.

"We have adopted the *ad valorem* system," he argued; "we tax according to intrinsic values. Therefore, we impose no tax on the contents of the rag-bag, or the chips in the wood-yard; why, then, on any article so utterly useless to society as an old bachelor?"

Finally, the rules again suspended, we actually passed the bill!—rather taken by surprise, when the vote was announced, at what we had done, and a little concerned as to how our constituents might take it. But we were in no mood to reconsider the vote. So we urged the clerk to report to the senate at once. Then, having adjourned the house, we followed, accompanied by the young ladies to see the result.

The spirit of frolic is infectious. The senate took up our bill at once; it was read a first and second time, and put on its passage. Then two or three of the more "grave and reverend seignors" made a serious stand against it; and, finding the tide for the time too strong against them, availed themselves of the lateness of the hour to procure an adjournment of the senate. Next day it was laid on the table by a small majority.

I afterward asked our governor if he would have signed it.

"Why not?" he replied. "I see no impropriety in the bill; and as to its expediency, you gentlemen of the house and senate would have been responsible for that."

A LEGISLATIVE STRUGGLE.

THE most important matter that came before the Indiana legislature in the three years during which I was a member was the distribution of what was called the surplus revenue. Loaded down with a national debt as we now are, most of us have probably forgotten the time, though it is little more than forty years since, when the income of the government, under a low revenue tariff, left an unexpended balance of more than twenty millions in the treasury. It was divided among the states, according to population, Indiana's share being some

three-quarters of a million of dollars. It was payable in three equal installments.

The legislature was divided in opinion as to its disposition. In the house, then consisting of a hundred members, two-thirds wished the whole applied to internal improvements, while one-third preferred that it should go to public schools. One of the minority, but knowing well that it was impossible to obtain the whole for educational purposes, I introduced a bill, dividing the amount between the two objects. It was defeated, only thirty-three "education men," as we were called, voting for it. The leaders of the "internal improvement" party, assured that the game was in their own hands, now put forward their bill, proposing to invest the amount in stock of the state bank, the dividends to go for internal improvements. But here a schism showed itself. The farmers, headed by one of their number, Joel Vandever of Orange County, objecting to bank stock as insecure, wished the money invested in bond and mortgage of real estate. As soon as it was evident that they would vote against the bill because of this obnoxious feature, I quietly called the leading "education men" together in my room, and we agreed to side with Vandever, and thus defeat the bank men, which we did. Then Vandever's party, triumphant, introduced their bill, with the bond and mortgage feature in it, but the entire proceeds still to go for internal improvements. Thereupon we changed sides, going over to the bank men, and defeated their opponents by a vote of about two-thirds.

Thus we came to a dead lock; the house divided into three nearly equal parties, each resolved to carry its own point. No move was made during two or three weeks. Meanwhile I held secret conference with my friend Vandever.

"I thought," he said, "that you education men were going to vote for our bill. Don't you prefer the bond and mortgage investment?"

"I think most of us do. But we are determined to vote against any bill which gives us nothing for public schools."

"You can't expect half. You're barely a third of the house."

"I've given up all hope of half; but we, being one-third, isn't it reasonable that we should have one-third of this windfall?"

"That seems fair enough."

"Then, frankly, Vandever, I've come to make you and your friends a proposal."

"Well?"

"I'll draw up a bill, with the bond and mortgage clause in it; the first and third installments of this surplus revenue to go for internal improvements, the second for public schools; and I'll do my best to muster every education man in its favor if you'll do the same by the friends of your bill. You can't defeat the bank men in any other way."

"Perhaps not. I'll see about it. You'll present the bill?"

"That would be bad policy. I'm in the minority, a notorious education man. You are the proper person to present it."

And so it was settled; he and I agreeing to keep the matter a profound secret from the bank men until Vandever introduced our compromise bill. Then we had a regular field day.

The dismay of our opponents when this masked battery suddenly opened upon them was ludicrous. Vandever said but little, and, after I had added a few words, recommending the friends of education to vote for the measure as the best we could expect to get, I stepped into the lobby back of the speaker's chair, where I overheard a scrap of pithy conversation.

"What in the h—— is the meaning of all this, Jeff?" asked a young lawyer, leaning over the steps leading to the chair and whispering in the ear of the speaker, Mr. Evans.

"It means that the dog's dead. We're whipped. It's all some of that d——d Owen's work."

I smiled, to think they were giving it up so readily; but we had a fiery debate first, of which Vandever had to stand the chief brunt, being soundly berated as an apostate from the internal improvement faith.

The most flowery speech on our side was made by a promising young man, then fresh from college and classical recollections, Joseph Wright. A poor boy, he had entered the State University as janitor, and afterward became, first governor of the state and then foreign minister. I remember that he was descanting, in a somewhat sophomoric strain, on the duty of Indiana toward the children of the state,—her best treasures,—when his eye was arrested by a chubby little fellow of seven or eight, son of one of our members, who had been sitting on his father's knee and had strayed off, coming down the center aisle toward the orator.

"Ah, there!" said Wright, extending his arms to the boy, who stopped, abashed at

the sudden address. "Look there! I am reminded, when I gaze upon that little one, of a pleasant story from the annals of Rome, in her old republican days. It is related of the mother of the Gracchi, when several of her lady friends were exhibiting to her, somewhat vauntingly, no doubt, their costly ornaments, while she, simple in her tastes, had little to show them in return, that she turned to her children playing in the room, and exclaimed: 'These are my jewels!' Let us learn wisdom, gentlemen, from the mother of the Gracchi."

"The mother of the what?" exclaimed, in an undertone, a rough young country member, named Storm, and whom, because he seldom opened his lips except to move the previous question, we had nicknamed "Previous Question Storm." His exclamation was addressed to the member next whom he was sitting, Thomas Dowling, of Terre Haute. Now, of all things, Dowling loved from his heart a good joke; and this was too good a one to be lost. So, composing his features, he replied gravely to Storm:

"Why, don't you know her? It's a noted old woman in Parke County where Wright comes from. Everybody knows her there. You get up and ask Wright, and no doubt he'll tell you all about her."

We succeeded, however, in maintaining our bill against all the violent attacks that were made upon it. Then it went to the senate, where it was amended by giving two-thirds of the amount to the common-school fund, and one-third only for internal improvement. When the bill was returned to the house, we had another hard fight over it. But the senate held firm; and when it became evident that they would rather see the bill defeated than sacrifice their amendment, the house concurred. Thus the bill became law, and half a million of dollars (a large sum in those days) was invested for schools; being the first money going to make up the present general school fund of the state. And thus it came to pass that a minority of one-third of the house contrived, by a little adroit management, to set on foot a bill by which two-thirds of the surplus revenue of the United States was secured for the cause of education.

PROPERTY RIGHTS OF MARRIED WOMEN.

I BROUGHT forward, in accordance with my previous resolution, a proposal so to change the common law that married women might have the right of holding personal

property. Unanimously opposed by the members of the judiciary committee—it was lost.

Later in the session I introduced a bill in which I had incorporated the provisions of the civil law in regard to the property of married women, substantially as embodied in the Louisiana code. Of this bill I sent one copy to Chancellor Kent and one to Judge Story, and received from each of these eminent jurists a prompt reply at considerable length. The following brief extracts, however, give the gist of their opinions. Chancellor Kent said:

"I have been educated under the English common-law code relative to the relation of husband and wife, and am not insensible to the many harsh features which it contains and which are alluded to in the speech you made in introducing the bill, and for the perusal of which I feel greatly indebted to you. Several of the objections to the common-law doctrine are so strong that I should wish to see parts of that system corrected; but I cannot say that I am prepared for so thorough an innovation as you propose."

Judge Story was more decidedly in favor of the civil law principle. He wrote:

"Your speech has treated the whole subject in a very striking and masterly manner, and cannot fail, I think, to satisfy the minds of reflecting men that the present state of the common law with regard to the rights of property between husband and wife is inequitable, unjust, and ill adapted to the purposes of a refined and civilized society. I perceive that your scheme is mainly founded on, or in coincidence with, the civil law system. There are, in that system, a great many admirable provisions, and I am not sure, as a whole, whether it does not work better than that of the common law on this subject. As, however, I have never lived in a civil law country, I do not feel competent to judge of its actual operation. I have long been dissatisfied with the state of the common law respecting the rights of property between husband and wife. I think it requires great alteration and amendments for the protection of the property of married women coming to them after as well as before marriage. But whether it would be best to change the entire system for that of the civil law is a point upon which I am not prepared to give an opinion."

After stating his inability to judge whether the change proposed would accord—as to be useful he thought it should—with the feelings and institutions of the people of Indiana, Judge Story adds:

"Many of the provisions of your bill strike me in their general bearing to be excellent and worthy of the thorough and deliberate examination of every wise legislature."

Profiting by these strictures and by the knowledge I gradually gained of the feelings and prejudices of my fellow-members, there-

by convinced, also, that my bill was too radical for that time and place, I did not press it to a final vote. At the next session we revised the laws, and, being appointed one of the revision committee, I adopted a more prudent system of tactics. It so happened that the law of descents was referred for revision to a sub-committee consisting of Mr. Marshall of Jefferson County, one of the ablest lawyers in the house, and myself. Having won over my colleague, I reported, with his concurrence, a bill giving to the widow of an intestate dying without children one-third of his real estate in fee absolute and two-thirds of his personal property, the old law entitling her, in most cases, to but one-third of his personal property, and the use, during her life, of one-third of his real estate.

Yet even this proposal to do scant and partial justice to a childless widow drew down upon me a storm of denunciation. I was assailed by one of the most prominent lawyers and oldest speakers of the house as a reckless innovator to whom nothing was sacred, not even laws and principles, dating back to the time of Edward the Confessor, and he stigmatized my bill as a covert attempt to annihilate social rights and ties, and "subvert the whole order of society."

I ignored the personal attack and contented myself with the following appeal to the sympathies and sense of justice of the farmers, of whom our legislature was largely composed :

"Who takes lot and part in the heavy labors incident to the occupation of a new country? Is it the man alone? Is there no task but that he performs?—no home duties, no domestic labor, sometimes weighing down his weaker partner even to the grave? I appeal to any successful settler, who having raised his cabin first in the wild woods, has opened a flourishing farm and seen plenty flow in upon him, whether he, alone and unaided, built up his fortune and made comfortable his home?—whether there was not one who saved while he accumulated; whether, when his arm was busy without, her head was idle within; and whether his heart does not revolt at the idea that she, whose prudent economy has so faithfully seconded his exertions while he lived, should, if disease or accident deprive her of his sustaining arm, have wrenched from her, by an iniquitous law, the property her watchful care may have mainly contributed to increase and keep together? If we had proposed to alter the law, so that the whole property went to the widow, who shall say that such a change would have been inexpedient or unjust? We give, by this bill, less than half, because we scrupled to make, even so righteously for the better, a sudden change. If blame attach to us, it is in being too fearful of innovation, and in not proposing, as we ought, to give her the whole."

At the commencement of the debate the house had seemed to hesitate at the proposed change, but when Mr. Marshall had followed up my remarks by an effective speech on the same side, there was a complete revulsion of feeling and the bill passed almost by acclamation, and became, for a time, the law of the state.

The new law was everywhere received with approbation, and remained in force until a commission appointed to codify the laws dropped it out of the revised code of 1843. It is difficult to believe that such an omission was due to carelessness. If it was made of set purpose, what a comment does it furnish on the recklessness of professional prejudices! The legislature, brought face to face with the notorious fact that, throughout the toilsome farming life, the wife bears her full share of the burden and heat of the day, had taken a first step in righting the grievous wrong done to her. The people approve; but these commissioners, in contempt alike of civilization and of Christian precept, go out of their way to defeat the popular will, and to revive legal principles which were a disgrace even to the dark feudal period whence they originally sprang. For ten years longer the childless widow was forgotten, and the crying evil remained unredressed.

LEGAL ANECDOTES.

Our circuit judges were elected by the legislature; not a good plan, I think, as it virtually left the choice to the delegation from the judicial circuit. Yet the judges were of fair ability, and more than fair honesty of purpose. If they sometimes wrested the law from its strict legal construction, it was usually in favor of what to the popular sense seemed natural justice. They were much respected; more so than the easy-going familiarity which commonly prevailed in the court-room, even between bench and audience, would have led an outsider to imagine. I call to mind an incident in point which some of our old inhabitants still remember, though it occurred nearly fifty years ago.

A certain antiquated dame, hale and self-possessed, widow of a well-known farmer who had settled at a very early day near the town which had taken the place of the ancient French post of Vincennes, had been summoned to that town as witness in a circuit court suit. She was dressed in the old-fashioned, short-waisted, straight-cut gown that has since disappeared, and wore what was called a poke-bonnet, composed

of pasteboard covered with printed calico, projecting much in front, and fringed behind with a wide calico cape as protection to the back of the neck from the sun.

Though still lively and loquacious, the old lady's voice had no longer the ring with which it had been wont to summon her husband to dinner from his distant labor; and the failure of a few front teeth since then had tended further to weaken it.

"Madam," said the judge, after this witness had answered a question or two, "try to speak a little louder."

But the second effort succeeded scarcely better than the first, and he again addressed her:

"The court cannot hear a word you say, my good woman. Please to take off that huge bonnet of yours."

"Sir," she replied composedly, and speaking distinctly enough this time, "the court has a perfect right to bid a gentleman take off his hat, but it has no right at all to require of a lady to remove her bonnet."

"Madam," rejoined the judge, "you seem so well acquainted with the law that I think you had better come up and take a seat with us on the bench."

Whereupon she rose, dropped a low courtesy to the court, and, to the infinite amusement of the by-standers, replied:

"I thank your honor kindly, but there are old women enough there already."

The circuit judge was aided by two associate judges, whose judicial services were paid for at the rate of three dollars for each day of session, no mileage or other expenses being allowed. The grade of professional ability likely to be called out by such a rate of compensation may be imagined. When it happened that the judge, because of some legal disability, had temporarily to vacate his seat, the elder of the two associates presided, and on such occasions, judge and

counsel not infrequently came into collision. An example of old date, which went the rounds of the bar at the time, occurs to me.

The elder associate on this occasion was an illiterate farmer, short of stature, lean of person, and acrid of temper. An old friend of mine, John Pitcher, who has since served with much credit as judge of our Court of Common Pleas, was of counsel in the case. He is still living, an octogenarian, and was noted in younger days for acumen and wit, the latter usually of a caustic character. In the exercise of this somewhat dangerous faculty, he had, on some occasion, offended the associate now presiding, who bore him a grudge in consequence.

It was a suit for damages, and Mr. Pitcher, retained for the defense, took occasion, in the early part of his remarks to the jury, to say:

"There is a legal maxim, applicable in this case, to which I invite your attention—"*De minimis non curat lex.*"

Here he paused, intending, doubtless, to add the translation; but ere he could do so, the judge broke in:

"Come, Pitcher, none of your Pottowat-tomy! Give us plain English."

The other, without turning his eyes from the jury, or intimating by word or gesture that he had heard the remark, proceeded quietly in his speech for more than half an hour, ere he again reverted to the matter, winding up thus:

"But, gentlemen of the jury, this case, at last, turns chiefly on that well-known legal axiom, which I have already had occasion to bring to your notice, '*De minimis non curat lex*,' which, when reduced to the capacity of this honorable court, means—observe, gentlemen—means 'law does not care for little trifling things' and"—turning sharp round on the diminutive figure, representative for the nonce of judicial dignity—"neither do I!"

MARS AND HIS MOONS.

THE recent discovery by Professor Asaph Hall, United States navy, of the satellites of Mars has tended to increase the interest in the study of that planet not only by astronomers and scientific men, but by the thinking public at large. The various theories as to this planet have been treated at length at different times in the "Cornhill Magazine," and it may be interesting to sketch them briefly here. One is the theory that

the planet is at present inhabited, and that, too, by creatures which, though they may differ very much from the inhabitants of this earth in shape and appearance, may yet be as high in the scale of living creatures. This theory assumes as probable the belief that among the inhabitants of Mars are creatures endowed with reason. According to another theory, neither vegetable nor animal forms known to us could exist on

the planet. Yet another theory, an intermediate one, holds that each planet has a life-bearing stage, but that the duration of this stage of its existence, though measurable perhaps by hundreds of millions of years, is yet exceedingly short by comparison with the duration of the preceding stage of preparation and the sequent stage of decay and death.

By the application of the laws of probability, the chances are shown to be very small that life exists at this present time on any planet selected at random, so that the period of a planet's fitness for life being short compared with the preceding and following stages, the chances are very small that any time taken at random would fall within the period of any given planet's fitness to be the abode of living creatures. Two conclusions follow from this theory: first, our earth is but one among many millions of worlds inhabited at the present time; secondly, every planet is at some time or other, and for a very long period, the abode of life. This theory, while recognizing that natural processes like those going on in our earth are at present manifested in Mars, calls to notice the fact that for countless ages in the past, mighty processes of disturbance and continuous processes of steady change took place in our earth, when, as yet, there was no life, and that life will probably have ceased to exist on this earth millions of years before the land, and sea, and air will cease to be the scene of nature's active but unconscious workings.

Being much farther from the sun than we are, Mars receives much less direct heat, and his orbit being outside the earth, he was probably formed far earlier, and as he is much smaller, he cooled more quickly than the earth. His mass is not much more

than one-ninth of hers, while his surface is about one-third of hers. Then, if originally formed of the same temperature, he had only one-ninth her amount of heat to distribute. If he had radiated it away at one-ninth of her rate, his supply would have lasted as long, but radiation takes place from the surface in proportion to the surface, hence he parted with it three times as fast as he should have done to cool at the same rate as the earth, and must have attained a condition which she will not attain until three times as long an interval has elapsed from the era of her first existence than has already elapsed. Geologists agree that the last-named period must be measured by many millions of years; hence it follows that twice as many millions of years must elapse before our earth will be in the same condition as Mars, and Mars must be three times as far on the way toward planetary decrepitude and death as our earth. Then assigning two hundred thousand years as the extreme duration of the period during which men capable of studying the problems of the universe have existed, and will exist on this earth, the theory holds that Mars would have entered on that stage of his existence many millions of years ago, and that the appearance of the planet itself implies a much later stage of planetary existence.

With the naked eye, Mars is principally remarkable for its ruddy color, and in the telescope this color is not lost, but confined to particular regions, and the intermediate parts are of a darker and greenish hue. On the opposite sides of his disk, two bright spots of white light are seen, presenting the same appearance as would our snowy poles to an observer on the planet Venus. These reddish spots and darker regions between are permanent peculiarities, and were

first discovered by Cassini. Dawes made such excellent pictures of the planet that from them Proctor constructed his chart. The names attached to the different portions are those of astronomers whose observations have thrown light upon the geography of the planet.

The markings on Mars are not al-

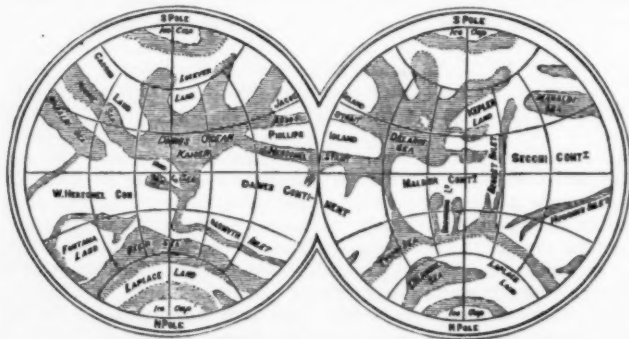


CHART OF MARS.—AFTER PROCTOR.

ways visible when the part to which they belong is turned toward us. A veil which has nothing to do with the distinctness of our atmosphere is sometimes drawn over it for hours and even days. In October, 1862, Lockyer was observing Mars and noticed that a part of Dawes' ocean was hidden from view. A faint, misty light was noticeable, but later he saw that the outlines gradually became clearer, though the white light continued until he gave up observation. Dawes, later on the same night, also observed Mars. His drawing at that time showed that the veil had been lifted, but traces of the misty light seen by Lockyer were still to be detected in the drawing. An eminent French astronomer argued that vegetation on Mars is red, losing its ruddy tint in winter. If this be true, such changes as were noticed by Lockyer and Dawes would indicate a sudden blooming forth of vegetation over hundreds of square miles. Knowing the position of the planet's equator, we can tell what season is in progress in either hemisphere, and it has been observed that the hemisphere where winter is reigning is nearly always covered by just such a veil as has been mentioned. An observer on Venus watching our earth would observe a hiding of the features of that hemisphere which was presented to him in its winter season, for fogs and rain and snow are more prevalent with us in winter than in summer. The cold air of winter, unable to retain the aqueous vapor passing into it, is forced to precipitate it in the form of fog, mist, rain or snow, an exact counterpart of processes recognized on earth. Our winter clouds, instead of increasing the coldness by keeping off the sun's rays, are an enormous supply of heat, liberated for our benefit as the invisible vapor of water assumes the form of cloud and rain.

On Mars the summer and winter of the northern and southern hemispheres are not equal, owing to the eccentricity of his orbit, and like the earth the axis of Mars is so situated that summer in the northern hemisphere occurs when at the greatest distance from the sun; but the effects resulting from this are more striking than with us, for Mars's sun gives half as much light and heat again in perihelion as in aphelion, hence summer in Mars's northern hemisphere is much cooler, and winter much warmer than with us. And the contrast between summer and winter in the southern hemisphere is more striking still. Now, if there are living creatures on Mars, the existence of such clouds as

have been mentioned would be more necessary to them than would our clouds to us.

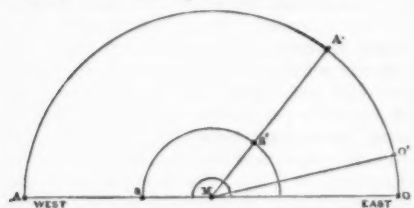
The vaporous envelope which covers Mars has been shown by the spectroscope to be aqueous, therefore we must believe in the existence of oceans there. The water in the air must be raised from seas and rivers upon the planet, and this proves that the white spots indicate the presence of ice fields around the poles. The clouds have been repeatedly seen to disappear, and we may well believe they are often dissipated in rain. The passage of clouds from place to place indicates aerial currents, hence Mars has winds. The existence of continents proves the action of volcanic forces—there must be volcanic eruptions modeling and re-modeling his crust. There must be rivers by which the water from the rain-falls can find its way back to the seas. There must be mountains and valleys. This much science and the calm reasoning of Proctor teach us.

At present, however, the greatest interest is centered in Mars's satellites. To the powerful telescope of the Naval Observatory at Washington, the present proximity of Mars, and the skillful labors of Professor Hall, are we indebted for the knowledge that the poet was wrong who sang of the snowy poles of moonless Mars.

The outer satellite is about twelve thousand miles from the surface of Mars, and is supposed by competent authority to be about eleven miles in diameter. The inner one is about thirty-five hundred miles from the surface of Mars, and about fifteen miles in diameter. The outer one revolves around Mars from west to east once in about 30h. 18m., and the inner one in the same direction in about 7h. 40m. Here is presented a phenomenon hitherto unknown in the solar system. Mars himself revolves on its axis from west to east in about twenty-four and one-half hours, hence the outer satellite would, like our moon, rise in the east, while the inner one would rise in the west!

By reflecting on the direction and rate of the motion of the satellites and Mars himself, it will be seen that in one hour of time a point on the surface of Mars would pass over about $14^{\circ} 42'$ of arc from west to east. The outer satellite in the same time and in the same direction would pass over $11^{\circ} 53'$ of arc, while the inner one with its far greater speed would pass over about 47° of arc. No other satellite is known to travel in its orbit faster than its primary revolves on its axis. The result would be then that

the outer one traveling in its own orbit slower than Mars revolves on its axis would rise in the east, but the inner one would run ahead of Mars and rise in the west.



M, Mars. S and O, Moons rising. S' and O', Moons' places four hours after rising. A and A', Apparent places in the heavens of the inner moon.

Now, supposing that both moons were to rise at the same time, the outer one in the east and the inner one in the west. In one hour's time Mars gaining on the outer one at the rate of $2^{\circ} 49'$ in arc, and the inner one gaining on Mars at the rate $32^{\circ} 18'$, at the end of four hours from moon-rise the outer one would be $11^{\circ} 16'$ above the eastern horizon, while the inner one would have passed over $129^{\circ} 4'$ in arc from the western horizon, and thus be but $50^{\circ} 56'$ above the eastern horizon. This will be seen by a reference to the accompanying figure. We might at first conclude that the inhabitants of Mars, if such there be, would witness the extraordinary sight of two brilliant moons passing each other in the heavens above them, but a little further reflection will show that to all intents and purposes Mars has but one practical moon, and that as far as light reflecting is concerned the outer one is a most useless attendant. The inner moon being fifteen miles in diameter and 3,500 miles away would from the surface of Mars subtend an arc of $23'$, which would give it an apparent size of about three-quarters of our moon.

Now the outer one being but eleven miles in diameter and 12,000 miles away would subtend but about $3'$ of arc, and as the naked eye, that is, the human eye of this

earth, can but barely see a celestial object which subtends $1'$ of arc, it follows that to the inhabitants of Mars their outer satellite would appear to be a little larger than Mars does to us. We may therefore conclude that for the people of Mars there is but one practical moon, and that that one rises in the west.

Again, supposing that this inner moon should rise on a certain evening at 6 o'clock, it would set in the east at 11h. 34m., and rise again in the west at 5h. 9m. the following morning,—set again at 10h. 43m. in the forenoon to rise once more at 4h. 18m. in the afternoon, and so on. Thus to the men of Mars the moon rises twice in the same night.

Let us see now how his moonlight nights would compare with ours. Supposing his moon and ours to rise at 6 o'clock in the evening. At 6 o'clock the next morning we would have had nearly twelve hours with our moon above the horizon, while the Martians would have had light from theirs but 6h. 25m.—that is, counting from 6 o'clock in the evening to 6 o'clock the next morning. But on the other hand, the Martians have their moon every night, which is a boast we on earth cannot make.

There is still another interesting phase of Mars's moon. Speeding through its orbit in 7h. 40m., each quarter will consist of but 1h. 55m.; thus, as in the former case, supposing it to rise at 6 o'clock in the evening and at that instant of time to be full moon, at 7h. 55m. it will have reached its last quarter, at 9h. 50m. it will be new moon, and at 11h. 45m. eleven minutes after setting, it would reach the second quarter. Thus in one night the Martians will see their moon passing through all the phases, which with us and our moon require more than 27 days.

NOTE.—The figures here given indicating the speed and distance of the moons of Mars are not claimed to be exact, for the elements from which they are derived are not as yet absolutely determined, astronomers still differing on that point. Still the error would not be sufficiently large to affect materially the facts given above.

HESPERUS.

Do ye perceive, shapes of the western skies,
 Apart from joy such as to life belongs,
 Know ye, oh marvelous fabrics, that the eyes
 Of mortals watch ye—listening as though to songs?
 Slow-chanted poems, changing in form and hue,
 Are ye aware of wide symphonic moves
 Among your star-crowned pinnacles? And you,
 Ye sea-foam strips at mid-day—gullies, grooves,

Fantastic turrets, bastions and holy fanes,
Cities scarce built when ruined, do ye reckon
How to the heart of man your mysteries beckon?
What of your glories in man's soul remains?

Or is this sky a dome of polished blue,
A crystal-pillared chapel, on whose walls
Some humorous, mighty power doth still endue
A pageant-travesty of all that crawls
About the earth-crust? From the infant's crow,
From laughter of a little red-checked boy
To shocks of armies and the overthrow
Of century-mortised cities; from the joy
Of still-voiced grasses to the angry blare
Of hurricanes and earthquakes,—each great text,
Plain to high souls whom envy never vexed,—
Folly, crime, love and wisdom, all are there.

Then how that boundless vast artificer
Must love to shift his scenes from dawn to dawn;
To breathe in curves exquisite, subtly drawn,
With delicate tints, and angels' pinion-stir,
Some hint of earthly happiness or woe!
Perchance a bridal or a funeral train,
Or thoughts that scud across a maddened brain
When hope looks true, and all the pulses glow;
Perchance unsounded problems of the world,
A law, a truth, a virtue elemental,
A hieroglyphic, close-wrapped, transcendental
Never by man's dull wit to be unfurled!

From off this sheer and skyward promontory
I see a bay where meet the converged lines
Of Western traffic, and behold the glory
That from a nation in yon city shines.

Still, there be promptings, secret calls that turn
Westward my face, though the night's end may glow
Fair with false sunrise, high though the mid-sun burn,
Though evening's gale the sunset caldron blow:

Why in that core flamboyant must I gaze
Longing to march westward, ah! far away?
Why do our souls, seeking a cloud-Cathay,
Run toward the sun along those glittering ways?

Say we are waves, urged by a devious current
Obedient to mysterious laws of mass,
Never, for all our boasts, to be aberrant
From the vast Plan through which all comes to pass.

Or, being plants fed with a quicker sap
That faster move than brethren of the meadow,
Do we lean after, out of night's dark lap,
Afraid to brave the round earth's starlit shadow?

Or are we poured like Norway's living flood?—
O'er crag and lake the myriad-breeding lemming
Moves with an instinct that will bear no stemming
Till the Atlantic drowns the prodigious brood.

Once did the West contain those blessed islands
The ancients fabled? The red Indians know
Moored in the evening sky, their happy highlands
Where the pale foeman flies the exultant bow.

Perhaps our home was once a golden region
Long sunk beneath the sinister gray sea,
And that is why a world-wide, dim religion
Motions men on to where that land may be;

Perhaps beneath the treacherous Atlantic
It slumbers now, while through the oozy ways
The starfish creeps; in palaces gigantic
House mighty sharks and human-visaged rays.

Or is it memory? If from twilight ages
Our ancestors have westward, westward marched,
Broken through all, fought, and by deadly stages
Mastered seas, sands,—wind-rent, by deserts parched,—

Then may they, many a time, in separate æons,
Have stood just here, noting with savage gladness
In blood-red skies, loud gales where all is sadness,
Signs of their prey, and heard triumphant pæans,

Till, following ever on the ancient trail,
A thousand times girdling the pied earth's rind — —
Could it be they, whose dim foredeeds avail
To urge us westward with this longing blind?

But if this height full many a time was trod
By antique men, facing the beckoning west,
Were there not some whose naked feet were shod
With wings ideal?—on whose dull hairy breast
Weighed all this life-long misery of a crawling?
Who sighed for change and in each coarse limb yearned?
For wind, for space, for more light dumbly calling?—
Watching the stars, proudly the flat earth spurned?

Such if there were, like to an ant with wings
That soars scarce once, but, being hatched in the mud,
Hastes to the earth and off her pinions flings,
Back they did plunge, ay, back to the old wildwood!

How many æons more? Shall thousand races
Like individuals live, die, wake, and sleep?
Once more a thousand times shall all the faces
Of earth perceive the human myriads creep,

Before man's shoulders have put forth their wings,
Before man's brain, remembering and forgetting—
Pure force the senses are no more besetting—
Shall grow to a bird that free from discord sings?

Yet the old Gaul esteemed this frame a raiment
Round deathless souls, and the brave heathen loaned
His coin and cattle 'gainst an actual payment
In some new land beyond his burial mound.

What if it now were true? The dull earth spurning
Perhaps we too while gazing on yon gold
Shall through these eyes behold the red sky turning
To gray and know our last day by has rolled;

Then when the body will no more obey,
Why shall we not—a mist, a shade, a thought—

Finding death's pruning-knife great fruit has brought,
Wing westward still after the flying day?

We may not speak to mortal friends or foes,
Nor shall we care so to infringe that Plan:
Mysteries obscure and wonders we shall scan
Wrapped in divine, ineffable repose.

Are not the pleasures of the growing boy
Thrice those of infants? and when mind gains sway
O'er matter does not an intenser joy
Break on the student as the kneaded clay

Of his five wits grows finer in the straining?
So at the last, when in the slow machine
Of brain and body there's no heat remaining,
Shall not the engineer desert the scene?

Oh! to sweep on across the windy mountains,
Study all lands, oceans, all woods and airs,
Search every river to its tiny fountains,
Track wily men through their fine-spun affairs!

Deaf to its roar are those who make their home
Where sheer Niagara jars the primeval rock:
Let them but go and come: the awful boom
Strikes on their new-born ears with thund'rous shock!

Blind are these eyes, except they note some change—
They cannot see, until by contrasts taught;
Then how obtuse, how narrow in their range
Are human senses and is human thought!

But,—when the trammels fall! what sights, sounds, tastes,
Globed in our perfect and unfettered minds,
Shall greet us then! Silent and moveless wastes
Shall sound with anthems mightier than the wind's.

What time the mullein, rising from her ashes,
Builds from the dry heart of her crumpled leaves
A gold-tipped campanilè till it flashes
Like the famed bird that, dying, life receives,

Then to review the scenes of earthly bliss!
To launch in thought again upon the stream
Of summery passion, where the sigh and kiss
Each other's sweetness to enhance did seem—

Kiss like those fresh gold blossoms, and the sigh
Like this brown wreath of winter-bitten leaves:
Shall we not smile, rehearsing words gone by,
Wise, far too wise, to dwell on that which grieves?

Someone foreknew the desperate heart of man,
When stars and moon, and the bright northern sky,
Obedient to a Sun-of-suns, began

Through the dark night the name of Light to cry:
A fly's love-lantern to the swamp is pledge
That somewhere dwells a midmost soul of flame;
Through the black storm a sword of dazzling edge
Flashes a hope and scores an eternal name:

And since the night forms but a lovely version
Of glorious day, different, but no less real—
Mortal, look up! so shall this clay's dispersion
Prove but the step into a life ideal.

TOPICS OF THE TIME.

Protection.

TO THOSE who watch carefully the development of public opinion, it is easy to perceive that a change is in progress concerning the policy of "protecting" American industry. If we are not driving toward free trade, we certainly are driving toward the freest trade we can have consistent with the raising of a competent revenue for carrying on the government. By great multitudes of thinking men, who have come out of the old party of protection, or have inherited its traditions, it is now believed that the time for protection is gone by; that the country is no longer in a state of childhood, but is in a state of manhood entirely capable of entering into a free competition with other nations for the world's trade, and entirely capable of taking care of itself. The wise men are many who believe that the policy of protection is to-day obstructing the channels of industry and exchange to a disastrous extent, and that nothing is necessary to our national prosperity but to throw open our ports to such a free entrance of trade as to set all our industries in motion to supply the articles of exchange. We may cite Mr. Horace White's article in a recent number of "The Galaxy" as very strongly and lucidly representing the views of these men.

We coincide with Mr. White in his opinions at all important points. We have probably been a firmer believer in protection than he has ever been, because we have a memory that reaches farther back. There was undoubtedly a time in the early history of this country when free trade would have been a curse to us. A nation, in order to enter upon free trade with the world, should be in like circumstances with the nations with which it is to enter into competition. For nearly a century, certainly, we were not in the same circumstances as other nations. We were developing a new country, and had need of every laborer who had a hand to offer. With "all out-doors" to cultivate, and to weave together with canals and railroads, and with wages ranging from fifty to a hundred per cent. higher than in Europe, how could we develop manufactures, and become in our industries a self-sufficient nation, through a policy of free competition? The free trade doctrine is in the habit of laughing at this question, but he will find it difficult to give it a short and sufficient answer. So we say that the policy of protection was sound in its application to the exceptional circumstances of a young nation, not yet grown, and trained, and stripped to its work. And now we say that the circumstances of the nation are not exceptional,—that our railroads are built, our labor is plenty and partly unemployed, and we are ready to go into a free competition with all other nations for the business of the world.

How are we to raise the revenues? Here is a question of an exceedingly important and practical nature, and it was to write something about it that

we began this article. There is a large mass of voters, and there are a good many politicians, who fancy that a tariff for protection has an important relation to the revenue. It certainly has such a relation, but not in the way they suppose. All this is familiar ground to the political economist, but the average voter has never understood the difference between a tariff for protection and a tariff for revenue. He has, at least, never understood that a tariff for protection is absolutely opposed to a tariff for revenue, and that we may have a tariff that will give the largest revenue, and, at the same time, yield the least protection. Absolute protection is absolute prohibition. Absolute protection is, therefore, the destruction of revenue. A tariff so high as to shut off all importation is a tariff squarely opposed to all revenue. The principle of protection is at war with revenue. To give revenue, something must come in. To give much revenue, something, or rather a good many things, must come in pretty freely. To get the largest revenue, we must abandon the policy of protection entirely.

It is beginning to be apprehended that the petting of our industries, at this period of our history is a luxury which, as a great, impoverished people, we cannot afford. We have learned, at least, that protection cannot keep industries alive when the market for their products is insufficient, and that we are paying much more than we ought to pay for goods, while the man who produces them is not benefited. Some of our industries, which have been utterly overshadowed by protection, have died out. An illustration of the working of protection, in increasing the cost of goods to the people, can be found in almost everything we wear. A silk hat, for instance, which ought to cost, at its best, no more than five dollars, now costs eight. The duty of sixty per cent. on the plush and other silk employed makes the silk hat a luxury, and nobody is benefited. We pay three dollars more for the hat than we ought to pay; the hatter himself does not at all increase his profits, while he finds his business cut down to its lowest mark compatible with continued existence, for only rich people will buy silk hats at the price. A low tariff on the materials—say a tariff of twenty per cent.—would increase the revenue, and so cheapen the hat that everybody could afford to buy it, and thus set all the manufacturers at work. Forty millions of people, with every man and woman of the number heavily taxed to keep alive our woollen industries, while their gates are shut down and their workmen unemployed, do not form a very edifying spectacle. The people have petted the manufacturers a good many years. They have submitted to a taxation for this purpose that none but a prosperous people could stand. Now it seems to us that it is time for the people to take care of themselves,—time for the fostering mother to push the birds out of the nest.

We have built a wall around us—a wall of pro-

tection. Our manufactories are lying still because they have no market. They can get no market outside, for, with raw materials taxed, as they are in many instances, they cannot compete in the markets of the world. Again, they can get no markets outside, because what those markets have to give us in exchange is shut out by "protection." Trade is a game of give and take; and we cannot shut out the products of other nations if we hope to sell them our own. We ask for no free trade that will be inconsistent with a tariff that will give us the largest revenue; but it seems to us that the policy of taxing the people of the United States for the protection of industries that have become bankrupt under the policy, or have ceased to find a sufficient market at home, is about played out.

A Reform in the Civil Service.

WE have several times had occasion to speak of the small influence of the voting population of the country, in the shaping of political affairs. For half a century, two great political machines have managed the voters. Men have been nominated and elected to office, now in the interest of this machine, and then in the interest of that. Issues have been made up between the machines and fought out, but the decisions which the votes of the people have aided to make, whatever they may have meant to the people, have meant but one thing to the men who have run the machine, viz., office and that which goes with office,—power and patronage. For these last fifty years, the politics of the country have been run mainly in the interest and by the power of two great bands of office-holders and office-seekers. The motives of pay and plunder and power have been dominant. It has been perfectly well understood that office was the reward of party service. The small politician who has done the dirty work of the successful candidate for Congress, has been rewarded with a post-office, or a clerkship, or a place in the custom-house. The more ambitious have received consulships or foreign ministries. We have been disgraced at home and abroad by the appointment of men lacking every element of fitness for their positions. Politics has become a business—a trade.

Now, these facts are so notorious and so shameful that no respectable man has had the "cheek" to deny them, or to justify them. Both parties have pretended, in many ways and places, to favor a reform, but we have never had the slightest belief in their sincerity. We mean the machines when we speak of parties; and we have doubted them simply because it is not in the nature of the machines to commit *hari-kari*. The old-fashioned politician is a machine-man, always, and he knows nothing of carrying on the business of a political campaign, except on the machine principle of "you tickle me; I tickle you." So, when, in the planks of a platform established by a political convention of the old-fashioned machine-men, we discover one declaring for a reform on the civil service, we know that it means nothing. We know that the plank has

been put into the platform to deceive the people with the special end in view of strengthening the machine.

It so happens now that we have a president who believes in a reform in the civil service, and who took the platform on which he was elected to his high office at its word. He is engaged in carefully and conscientiously fulfilling his pledges. Now the sincerity of the machine-politicians of his own party may be gauged by the proceedings of a recent political convention, which not only refused to indorse his action but was at infinite pains to insult him in the person of the staunchest and most influential friend of his policy. Mr. George William Curtis happens to think that there is something in American politics superior to the machine. He is not only not an office-seeker, but he is a man who is known to have declined high office in the hope of serving his country better on the platform and by the press. The history of that convention, in its slavish and brutal subserviency to the policy and will of a single machine-politician, is one of the most disgraceful in our annals; but it betrays the real spirit of the machine, and ought to be very useful to the people of the country. The machine-man spits upon reform and reformer alike. All the machine-men hate reform, simply because reform is death to them. Mr. Conkling cannot possibly love Mr. Curtis, but Mr. Curtis will be sufficiently comforted by the respect and affection of all the good people of the country whose good opinion of the machine has died out. He may further be comforted in the fact that, whoever may own the present, the future is his; for this is a question that can never be eliminated from the politics of the country, until it has achieved a sweeping and permanent triumph. No man who believes in national progress can fail to believe in a reform in the civil service.

How is this reform to be brought about? Let us give up all thought that it will, or can, be accomplished by the political machine. The professional politician of the old or the present school, the machine-man who believes in him, the party press which supports him,—these will do nothing. Worse than this: when brought face to face with the reform, and made to declare themselves, they will give us another Rochester convention,—bitter, malignant, disgraceful.

There is a large section of the American press which has no affiliation with the machine. Happily, this question of civil service reform may be regarded as outside of the pale of party politics. Both the political-machines have undertaken to manage it, with the hope of ultimately killing it, and getting what they can out of it while it is dying. They are not in earnest in their support of it, and cannot be, in the nature of things. Happily, we say, the question is outside of party politics. It is so by its nature, and so by the fact that both parties nominally adopt it and actually hate it. It is thus lifted out of the party fight, and becomes a question of public morals and of pure patriotism. As such, it can be treated by every independent political newspaper, by every literary magazine or

journal, by every religious periodical of whatever sect, by the preacher in his pulpit, the lecturer upon his platform, the author in his books. The editor and the "magazinish" have been publicly insulted. If they have any right to speak in this matter, it is time for them to assert it.

The hope of the country is in the development of a sentiment among the voting population which will make it impossible for the machine to have its way. The country is not now so seriously divided, on any great issues, that it cannot afford to take hold of this reform, and achieve it by whatever legitimate machinery it may be able to place in service. The reform once achieved, the American people will be forever free from the basest influences that enter into our politics. What better thing can this generation do than to leave the business of the country in the hands which are best fitted to carry it on, to put in foreign service men who will honor our country by their accomplishments and their high personal character, and kill out the shameful traffic in public office?

The Public Charities.

THERE comes to our table a little volume from the pen of Mr. S. C. Hall, entitled "Words of Warning, in Prose and Verse, addressed to Societies for organizing Charitable Relief and Suppressing Mendicity." It is an exceedingly sentimental little book, and if it had been written by an author less venerable than Mr. Hall, it would seem impertinent. But Mr. Hall is very much in earnest, and takes the liberty of his years to scold as well as to warn. His quarrel seems to be with the societies that, before giving, wish to investigate the circumstances of the applicant for alms:

"You teach us how to shirk the beggar tribe,
And tell us to give nothing, but subscribe.
Of course we can't pay double, so we do
The business part of charity through you."

Here follows a sharper paragraph:

"'Give nought to common beggars'—that's the rule;
The Alpha and Omega of your school;
You bid us send all supplicants to your door,
When sad or sick, or desolate or poor;
After inquiry duly made, you give
To such as—pending the proceedings—live!"

Mr. Hall proceeds to cite a good many cases, or supposable cases, which go to show that societies are slow, and he says, still in rhyme:

"Better a score of times be 'taken in,'
Than let one suffering sinner die in sin—
Than hear the coroner to-morrow say,
'Died starved,' of one you might have saved to-day."

It is a long and formidable arraignment which he makes of the "organizations," ending with the following charges:

"They give to Mercy a perpetual frown,
And Hope they keep—with broken anchor—down.
To Charity they lend the garb she scorns,
And Love himself—eternal Love—they crown,
Not with the sacred nimbus, but the thorns!"

To Mr. Hall's poetical efforts, he adds some "Words of Warning" in prose, in which he expresses the belief that the organizations which engage his opposition "dry up the natural channel of the heart, check or destroy sympathy for suffering, make indifference to woe excusable, if not obligatory," etc., etc.

We have thus tried to give the drift of our friend's little book, and we can only respond that, imperfect as the organizations are, and professionally indifferent and dilatory as they are too apt to become, they are, on the whole, very much better managers and counselors than he is. It is very nice to yield to one's benevolent impulses; it is good to be developed in the high benignities; there is no pleasure greater than that which is born of personal beneficence; but if, in order to compass these advantages to ourselves, we are certain to develop a thousand liars and make as many paupers, do not our satisfaction and improvement become somewhat expensive to the community? Indeed, it is quite possible to make our benevolence the most selfish quality we possess. We can easily imagine men who selfishly hug to themselves the delight of giving, right and left, to those who excite their sympathy and pity, while they shut their eyes to the falsehoods and tricks which they have encouraged.

It is very sad to remember that the "organizations" of which Mr. Hall speaks so bitterly have had their origin in a great, commanding, public necessity. If nine beggars in ten had ever been proved to be true objects of charity, then we could afford to give without investigation; but it is perfectly well understood that more than nine beggars in ten are liars, and that impulsive and indiscriminate giving, even to those who are worthy, demoralizes them. It is appalling to think that wherever a charitable door is opened, whether it lead to a benevolent individual or a benevolent society, the throng that enter are mainly shams and cheats.

The physicians of New York have had their attention called recently to the abuses of the free dispensaries of medicines. They were satisfied that multitudes were availing themselves of the benefits of the free dispensaries who could afford to pay for their medicines. A visitor of the Association for Improving the Condition of the Poor took up the matter, and investigated one hundred and fifty-two cases. Of sixty-two male applicants, twenty-three were not found at all,—they had given wrong addresses. Twenty families reported wages per week of from three to eighteen dollars, while their rent per month was from nine to twelve dollars. Only six of the sixty-two were found to be without means. Of the ninety females who applied, thirty-five gave wrong addresses, and could not be found. Only six of the whole number—the same as in the case of the males—were found to be without means. Cleaners, laundresses, paper-folders, cigar-makers, cap-makers, artificial flower-makers, etc., were represented among the applicants who were found with family wages going as high in some instances as twenty dollars a week. So here

were twelve out of one hundred and fifty-two individuals applying for a certain form of aid who really had a claim for aid, and a hundred and forty who could have paid for that which they lied to obtain for nothing!

Now, if we are to learn anything from this investigation, it is that, by following the advice of such amiable enthusiasts as Mr. Hall, we encourage eleven applicants for charity in the most rascally falsehood and deception, while we really help only one who is worthy of our alms. Can we afford this, even if it should happen to help us in the development of a beneficent life? We think not. Nay, we may go further and say that no man has a moral right in such a community as ours to take the matter of giving into his own hands unless he is willing to devote all the requisite time to investigating the cases to which he takes the responsibility of ministering. Just as soon as he undertakes to do this, the first fact he will meet is the impossibility of obtaining the addresses of his beneficiaries. Fifty-eight out of one hundred and fifty-two who begged for medicine lied concerning the places where they lived. The chances are that every one of these persons had money, or was engaged in some pursuit of which he or she was ashamed. It is fair to conclude, at least, that if any agent of the dispensary were really to find out the circumstances of these persons, he would adjudge them unworthy of aid. Needy people are not apt to cover up the circumstances which will substantiate their claims to charity. This matter has been tried a great many times, and after a man has gone, in vain, all over town to find the objects of charity who have cheated him into helping them, and then carefully thrown him off their scent, he begins to think very well of "organization"—that red rag which so stirs up the Bull in the venerable English poet.

Such "organization" as we have, in most of the American cities, is sufficiently open to criticism, without doubt. We have altogether too much of it, and too much of the competitive element in it; but wise and kindly managed organization gives us our only safety in dealing with pauperism. Individual giving may be very pleasant to Mr. Hall and his friends, but it is sure to make a great deal of work in the long run for the societies whose policy and work he contemns. The time seems to be past when sentimentality can be used with safety in the administration of charitable relief.

The Harvard Examination for Women.

A YEAR ago, we gave a somewhat extended notice of the plan for the examination of the acquisitions of women, instituted by the Faculty of Harvard College. It is proper now that we tell something of its results, and of the plans for the future. It will be remembered that these examinations were held for the first time at Cambridge, Mass., in June, 1874. The first that were held in New York took place according to announcement, in June, 1877.

The circular of the New York local committee is now before us, and from this, and from private

sources, we learn the facts, which will interest our readers. It will be remembered that the examinations are of two grades, the first being a preliminary general examination; the second, an advanced examination in special departments. To show exactly what these examinations are, and what are their objects, we can do no better, perhaps, than to copy directly from the circular alluded to:

"The Preliminary Examination is intended as a careful test of proficiency in a course of elementary study of a liberal order, arranged for persons who may or may not afterward pursue their education. It differs, therefore, both in its purpose and in its selection of subjects, from any college examination, whether for admission or for subsequent standing. It applies, however, the same standard of judgment in determining the excellence of the work offered, as would be used in judging of similar work if done in Harvard College. It is, therefore, strongly recommended to all girls who wish to test their progress by a strict and publicly recognized standard, or in a range of subjects wider than the ordinary school courses include.

"The Advanced Examination offers a test of special culture in one or more of five departments, namely, Languages, Natural Science, Mathematics, History and Philosophy. It is not intended to be taken as a whole, and does not, therefore, represent the studies of a college course, but is adapted to persons of limited leisure for study, such as girls who have left school and are occupied with home cares, or teachers engaged in their professional labors. Many of the latter class who have not time or inclination for a Normal School course, may be glad to obtain a Harvard certificate of proficiency in one department."

At the New York examination, eighteen candidates presented themselves, and the examinations lasted a week, under the conduct of Professor Child, and always in the presence of two ladies of the local committee. With the exception of a short oral exercise, to test pronunciation of the modern languages, the examination was wholly in writing. A noticeable feature of the exercises was the absence of unhealthy nervous excitement, each candidate working as calmly and quietly as if she had been in her own home. Three of the candidates exercised their option, and chose to take the preliminary examination in whole. Two of the three passed in all the subjects, and one failed in two. The remaining fifteen elected to be examined in part, and of these, twelve passed, while three failed. Professor Dunbar writes to one of the committee: "I do not see what particular advice can be given as to the deficiencies of the candidates. The returns do not seem to me to show any characteristic failures or short-comings. In other years, I had thought the mathematics the stumbling-block; but this year the candidates range all the way from failure up to a hundred per cent., and the same candidate in some cases shows that range."

A member of the committee writes to us: "Please understand that we do not intend these examinations to conflict in any way with a regular college course, for all such as desire it and can pursue it. We do not consider preparation for them as equivalent to a course in Harvard, or the other first class

colleges, and do not place the same value upon a Harvard diploma and a Harvard certificate. The examinations are intended to furnish a strict and publicly recognized standard by which girls, in course of education at home or in schools, may test their progress. Such a standard has long been very much needed, and now that it is supplied, we sincerely wish that more of the principals of girls' schools were anxious to test by it the value of their work."

These examinations have now become a part of the regular work of the University, and are hereafter to be held every year simultaneously in New York, and Cambridge or Boston, in Philadelphia, and in Cincinnati. In 1878 they will take place in the first and second weeks in June.

We have already recorded our favorable opinion of these examinations, and we have only aimed in this article to spread into the great multitude of cultivated homes which our magazine reaches what we believe to be information that is much desired. The reasonableness of the enterprise lies upon its face. Its usefulness will depend entirely upon the response which the American people make to it.

For all further or special information, the interested public is referred to the secretaries of the local committees in the different cities: New York, 59 East Twenty-fifth street; Boston, 94 Chestnut street; Philadelphia, 401 South Eighth street; Cincinnati, 372 West Fourth street.

THE OLD CABINET.

WHEN you return to town from a summer vacation everything looks strange and new. It always did seem strange to see the keeper of a restaurant eating at one of his own tables. Heaven knows, there is not one reason why the keeper of a restaurant should refrain from eating like other men; nevertheless, it gives one a curious sensation to catch him in the act. You say to yourself—this, then, is the reason for all this bustle, for all this rushing in and out of hungry brokers, and newspaper reporters, and Long Island farmers, and persons from Boston, Philadelphia and Absecon; this is the reason for all these marble-top tables; these melancholy attendants in white aprons and neck-ties; these extraordinary shoutings into dark closets, and over counters; and for all this Pompeian decoration: it is all that this one man may sit at the table over yonder and eat.

As I passed a gorgeous restaurant the other night, I looked in at the side window and saw the head-waiter taking his supper in the far corner of the long and brilliantly lighted room. One of the other waiters was in attendance at the back of his chair. The head-waiter appeared to be himself conscious of the incongruity of the situation; he doubtless had some such sentiment about the performance as an on-looker would have. He seemed, indeed, to feel that a head-waiter should be above an indulgence of this kind. He ate rapidly and nervously, and glanced around with a furtive air. I caught his eye, and moved on with a feeling of embarrassment, as if I had caught the eye of a convict.

DOUBTLESS their swallow-tail coats and white chokers help give to restaurant waiters their frequent resemblance to members of the learned professions. One of our most distinguished public men—or his double—may be seen any day carrying a tray in the dining-room of a hotel near Grace Church. The counterpart of a well known Doctor

of Sacred Theology serves at a restaurant farther up town. When I dine at these places I feel like asking these gentlemen to be seated and let me wait upon them. At the village of B. the barber looks so much like a certain reverend bishop that I can never get used to submitting myself to his professional attentions.

But when you come to look closely into the physiognomy and phrenology of these doubles, you find a curious blankness; or, speaking artistically, a lack of firmness and of character in the drawing. Somewhere in the face or in the head is betrayed the want of intellectual or moral stamina.

Do you not often feel something of the same lack in the faces of men whose reputation is wide? It would be interesting to note whether in such cases the reputation has not been made merely through the possession of extraordinary faculties of the mechanical sort—such as memory, application, etc.—faculties which generally go with genius and insight, but which often themselves suffice for the making of contemporary fame.

THERE is nothing that looks more strange to a citizen returning from his wilderness or sea-side vacation than the familiar newspaper. Among the things that he notices is a tendency to expansion, which seems to be a departure from the old method of editorial writing. It used to be the rule in newspaper offices to "condense"—to use as few words and as little space as possible in saying what you had to say; but the "great dailies" have changed all that, on the editorial page at least. There are plenty of able men writing for the newspapers, but it is only now and then that you find an editorial that would not be improved by omitting one-third or one-half. Especially is this true of the work of that latest product of journalism, the funny editor. Some "happy thought" that would be amusing enough in a paragraph, is hammered out into a column of editorial—an editorial whose En-

glish is the old-fashioned newspaper Johnsonese, and whose wit reminds one of the trick of the advertisement that begins with Alexander the Great and ends with the thunder unguent which "forces the whiskers and mustache to grow in six weeks."

An explanation of the watery method of newspaper editorial writing may be found in the fact that in some of our leading dailies, although their best men are often paid large salaries, and there is no stipulation as to the amount of "copy" to be supplied in a given length of time,—still, record is made of the lineal measurement of editorials furnished by each writer on the staff. There is therefore a constant temptation to fill out the column with sound and fury signifying nothing. This supposed necessity of expansion is of course harder on the funny editor than on any other member of the staff. If he should print a true record of his own experiences the narration could hardly fail to have that touch of the pathetic which gives intensity to humor.

In reading the newspaper nowadays it becomes evident that the American politician's scorn of the "scholar," and of the "gentleman" in politics is becoming tinged with dread. The professional politician finds that the "dam literary feller" is able, in a political convention, not only to make a telling speech, but to keep his temper in trying moments. Now the politician can also deliver a telling speech, but while his speech tells for him at the very instant and with the immediate audience, somehow or other he finds it telling *against* him beyond the convention's walls, and in that wider audience without whose applause his high ambitions come to naught. And moreover, the professional politician cannot keep his temper. This is the worst of it. To see a dam literary feller refusing to cower under the lash of the politician's carefully selected and long-pickled rod,—what an exasperating sight is that for a statesman who glories in his "strength!"

But it must be remembered in explanation of the American politician's unwonted dread of the literary element in politics, that he may of late years have extended his summer rambles to the Old World, where his sensibilities must have been cut to pieces at beholding the great empire of Great Britain going to the dogs under the rule of a sentimental novel-writer. If he journeyed as far as India he found a gushing poet on the vice-regal throne, and

returning to America he finds a literary man in charge of the Canadian provinces,—and the writer for a "ladies' magazine" leading the sentiment of a state and of a nation in strict opposition to the views and desires of a trained and "powerful" politician.

NEW YORK never looks so ugly as when you first come back from the country. In the country there is little that actually offends the eye; and you can see some kind of beauty in almost every direction. Even if the land lies utterly flat you get enough distance to make the view enchanting—as the familiar couplet has it. The process of converting hidden wealth and obscure intellectual vacuity into noonday hideousness is going on still in New York, but there has of late years been a change for the better. Some of the new shops and dwelling-houses are in much better taste than those put up ten years ago. The taste of many persons is improving, and more trained architects are in the field. Better architecture will come with the general improvement of taste in the community.

There were never so many artists and art-students in New York as there are this winter. The older men who have been here for years and the new men who have just come back from their studies, now find in New York something of the "art-atmosphere" whose absence has been hitherto deplored. A Munich master said not long ago that in the course of twenty-five years German art-students would be going to New York to be taught painting. He based his prediction upon the extraordinary ability of the young Americans at work in Munich.

CROSSING the Square last evening I passed close by the fountain. The water had been drawn off and the high grass and green lily-leaves surrounding the empty basin stood up dry and dusty, like artificial grasses. I stood still a moment by the stone coping and heard a slight sharp sound such as is made by tapping lightly upon a gas-pipe. Listening closer I found it was the chirp of a solitary grasshopper. There was something pathetic in that note. It suggested more than the death of summer; it was the death of summer, far away from its native fields and skies. I thought of the wide brown and purple salt marshes from which I had just come, where summer in dying only suffered a sea change into something rich and strange.

HOME AND SOCIETY.

Homes and Museums.

LOVERS of bric-à-brac—and the phrase designates a large number of very interesting people—are apt to make an important mistake. They transform their homes into museums. They bring together and pile up a collection. Now, the interest with

which a visitor regards a home is a very different one from that with which he regards a collection. To find scattered about a home, just in the right nooks and places, objects of art and beauty, is an exceedingly delightful thing. To examine a collection for the collection's sake—leaving its relation to the home entirely out of consideration—may be

interesting to some people who are "up"—as we say—in those things, but it is not at all interesting to those who do not see the use of it. That is—anybody can see that a beautiful object in a barren place serves a purpose, while a great many beautiful things, shut up in a cabinet, serve no purpose except by their numbers to cheapen one another.

An object of art in a home is entirely and always out of place whenever it shows that the interest of its owner is in the object rather than the home. A collection usually betrays a passion or a taste which subordinates the love of home. A person possessing this passion, and enthusiastic in his pursuit of its object, spoils his home by transforming it into a show-place for curiosities. The true policy is, never to buy an object of art, of any sort, without knowing just where it will fit into the home—just what uninteresting spot it will illuminate—just what vacant shelf or barren surface it will adorn. Cabinets may be very interesting pieces of furniture, but they are often used in such a way as to degrade or destroy the home idea.

Village Society in Winter.

WITH the closing of the doors and lighting of the fires for winter, accidentals, sociables, sewing and reading clubs begin in all inland towns and villages. We have a word or two to say concerning these stated little assemblies which constitute society in thousands of our towns.

First: As to sewing-clubs; the work should be carefully restricted to such embroidery, etc., as cannot be done by women who earn their living by their needle. The justice of this ought to be at once apparent; but it is, as a rule, overlooked. We have known the plain sewing taken from the sempstresses of a village, and given to church clubs, for a winter; the consequence of which was, hungry women asking parish help, and a stained-glass window back of the pulpit.

Secondly: In reading-clubs, let the time for each reader be limited by inflexible rule. If this is not done, there will be found in every such club, at least one dogmatic, selfish reader who will force his author and his voice upon the club, until in disgust and weariness the members fall off and the experiment fails.

Thirdly: If we may trench upon a most delicate topic, we would suggest that in merely social combinations, for the purpose of music, dancing or conversation, the old caste lines of the town be disregarded. There is no despotism more narrow or cruel than the aristocracy of a village. New blood and new ideas would generally revivify it; outside of the so-called "good society" of such a place which has been fenced in for two or three generations, is frequently found the larger proportion of intelligence, culture, and breadth of thought.

Fourthly: The great want experienced by cultured men and women in a small town is of books, periodicals, etc., which, individually, they are not able to buy. There are very few circulating libraries in American towns of a population less than

ten thousand. This want can be obviated in a measure, by a friendly combination between certain families or individuals, in which each contributes a given number of books to a common stock; these books are loaned to the members in turn.

A more formal and much better way is the formation of a book-club, such as were common in England before the establishment of Mudie, in which each member pays at the beginning a certain sum, with which as many books are purchased as there are members, each one choosing a book; these pass in regular rotation from hand to hand, remaining a fortnight with each reader; twenty books may thus be read for the cost of one. When the books have passed around the circle, they are sold to members for the benefit of the club. Fines for detention and abuse of books also keep up the funds. No officer is required in this association but a treasurer. Another advantage in the plan is that books can be bought by the quantity at lower rates than singly. The same rule applies to subscriptions for magazines, newspapers, etc.

Notes from Correspondents.

HINTS ABOUT COFFEE.

I VENTURE to give a few items in regard to coffee which may not be known to youthful housekeepers. They have been told, in a general way, not to buy coffee ready-ground or roasted. They obey the first direction, because it is easy enough to grind coffee, and it requires no scientific knowledge to perceive that the security with which the ground berries can be adulterated with chicory and beans, to say nothing of less cleanly additions, must prove a great temptation to dealers.

But it is a difficult matter to the uninitiated to roast coffee properly, and the young housekeeper, finding that coffee of her own roasting is either burnt or tasteless, sees no good reason why she should not buy the ready-roasted berries, which certainly have a better flavor than her own.

There is a reason. The method of roasting coffee for sale is to put large quantities at a time into iron cylinders. The mass of material, and the comparatively close vessel in which it is confined, prevents the grosser elements from being evolved and evaporated properly. Now, in roasting coffee in small quantities in open vessels, this is obviated.

Coffee should be roasted in small quantities in an open earthen vessel on the top of the stove. Stir frequently. If done too little, the aroma will not be fully developed, and the beverage made from it will be insipid. If done too much, on the contrary, this aroma will be dissipated, and the infusion will be bitter. A little practice and careful observation will enable the operator to know when it is just right. When done properly, the berries are of a rich, bright brown color.

Although it is proper to roast the berries in an open vessel, they should not be cooled in the open air. The best plan is to empty them into a sheet of clean brown paper, and wrap the whole in flannel until they have cooled. When cool, put them into

a vessel that is perfectly dry and that can be tightly closed.

For these same young housekeepers may not know that coffee berries very readily absorb the odors of substances near them. A few bags of pepper once spoiled a whole ship-load of coffee. Some berries that had lain for several days in a box in which sugar had been kept were utterly ruined.

All kinds of coffee improve by keeping. It is best when two or three years old. It is hardly necessary to add that coffee should be ground as it is wanted for the table. S.

RED.

I FULLY agree with what Hannah Snowden says in the October number in regard to wood fires, but I would say add to the attraction by putting a touch of red here and there in the favorite family room, whether it be library, sitting-room or parlor. The delicate blues and pinks, mixed with white muslin, are very pretty and suitable for chambers, where we

want the rooms to look pure and cool and lovely. but if we want our intimate friends who are admitted into our family rooms to exclaim, on opening the door, "What a bright, cheerful room, and how cozy and comfortable you look," then add 'ne touch of red. Two or three shades of light gray; a wall-paper, with graceful sprays supporting little red-breasted birds, or composed of autumn leaves, lights up well. Add a few red-bound books to those on the shelves, red, or red-and-white lambrequins, a red table-cover, or gray with red applique, a red and gray cover to the lounge, and a bright carpet. Put autumn leaves among the grasses in the pretty vases on the mantel. Then, with pictures on the walls, no matter of what kind so that they are good, and a few flowers in the windows, the furniture can be of the plainest; but such a room will be the delight of the family, and the coloring, not being sufficient to be glaring and offend the eye, will add twofold to the cheerfulness of the bright fire, with the brass andirons, of course.

M. W.

CULTURE AND PROGRESS.

Pierce's "Memoir of Sumner."

THE two volumes by Mr. E. L. Pierce, which have just issued from the press, deal only with Charles Sumner's private and literary life, from his birth (1811) to the year 1845. They are crowded with most entertaining reading, viz.: personal sketches of famous men in European literature, politics, art and society,—apart from the tracing of Sumner's own characteristics in early manhood. They present the future senator as an aspiring student of law and literature, a teacher of the science of law, and a not very successful practitioner. Sumner's political career will probably be described in a future work by the same authorized biographer. Like most of the distinguished men of Massachusetts, Sumner was descended from an Englishman. William Sumner came to this country in 1635. Legal associations appear to have been transmitted with the blood. The name Sumner is contracted from "summoner," and the emigrant ancestor was a deputy to the General Court of Massachusetts, and a commissioner "to try and issue small causes." Charles Sumner's grandfather left college to join the revolutionary army, became Major Job Sumner, for some days had charge of the guard of Major André, and escorted Washington into New York after the British evacuation. It is worth noting that he went to Georgia after the war, and came near being elected governor of that state. His son followed the bidding of his surname, and went into the law, and afterward (as is well known)

became sheriff of Boston. Charles was not distinguished at school, except for his wide range of careful reading outside of prescribed studies. But this passion for enlightenment, and the industry with which he followed it up, began to tell at Harvard, where Professor George Ticknor, on reading Sumner's notes of the *belles-lettres* lectures, said if he "continues as diligent as he has been, he will go far in the ways of reputation and success." In the law school, his untiring energy in the reading of everything bearing on the science gained him distinction. He became the trusted friend of the professors, in particular of Judge Story, and for two or three years after admission to the bar gave instruction at the law school. It was just after his graduation from college that he wrote an essay on commerce, and received for it the prize of the Boston Society for the Diffusion of Useful Knowledge, which Daniel Webster publicly assigned to him in Faneuil Hall.

He was bent upon laying a broad and thorough foundation, and investigated to the utmost whatever lay before him. When the time came for the choice of a profession, he reluctantly took up law; but once embarked in the study, where the great fund of energy which he possessed could be invested in books, his mind was excited by the perusal of legal biography. He resolved to make himself a great jurist of the historic pattern. This, the aim which ruled the rest of his life, sprang directly from his habits of acquisition. He followed it with the persistence that was born in him, and in turn gave birth to the greatest acts of his life. His father was a man of iron discipline in the family, and Sumner,

*Memoir and Letters of Charles Sumner. By Edward L. Pierce. Boston: Roberts Bros.

though courteous and winning in his manners, showed even in college a tenacity of opinion which sometimes became aggressive. The same tenacity, transferred to purpose, enabled him to go forward in a career of the kind he had chosen. He worked day and night, denying himself exercise, and indeed through life kept up such habits of labor that Dr. S. G. Howe wrote to him in 1843, that he behaved as if his body "were as immortal as his spirit."

For the development of the cultured, comprehensive jurist he found travel in Europe essential, and breaking away from his first beginnings in the profession, he went to France in 1837; afterward to England, then to Italy and Germany, returning to Boston in 1839. He wrote to Judge Story: "My tour is no vulgar holiday affair. It is to see men, institutions and laws; and if it would not seem vain in me, I would venture to say that I have not discredited my country. I have called the attention of judges and the profession to the state of the law in our country, and have shown them by my conversation (I will say this) that I understand their jurisprudence." There was no boastfulness in this, for the young American of twenty-seven was so erudite that he observed a degree of shallowness in eminent French lawyers or law professors, who had not read the French works he had himself studied. In England, he met with remarkable social favor. He had some excellent introductions; but his acquaintance was rapidly enlarged by voluntary introductions (he made a point of never soliciting any), until it was hard for his English friends to find a circle he had not already come to know. His letters at this time are full of fresh, informal impressions like the following:—"How odd it seemed to knock at a neighbor's door and inquire, 'Does Mr. Wordsworth live here?' Think of rapping at Westminster Abbey and asking for Mr. Shakspeare or Mr. Milton! * * * The house itself is unlike those in which I have been received lately, and in its whole style reminded me more of home than anything I have yet seen in England. 'Wordsworth's conversation' was simple, graceful and sincere; it had all those things the absence of which in Brougham gave me so much pain. I felt that I was conversing with a superior being; yet I was entirely at my ease. * * * He spoke warmly on the subject of copyright and of slavery."

Few men have entered upon American politics equipped with such various culture as Mr. Sumner, and his acquaintance at so early an age with the able minds in the government, the bar and the judicial system of England is almost unique. During this foreign sojourn, besides seeing so many people and places, investigating so many things, and writing home copious letters, he kept a journal and studied French, Italian and German. In Rome for three months, his routine, with a few exceptions for sight-seeing, was to rise at six and read four hours, reclining on a sofa; breakfast at ten, and then resume reading till six P. M., when he dined in a garden. In this way he learned Italian, and read Dante, Petrarca, Tasso, Boccaccio, Machiavelli, Guicciardini, Alfieri, Niccolini, Manzoni's

"*Promessi Sposi*," and several obscure authors—all in the term of three months.

Returning to Boston in 1839, he plunged again into the struggle of law business, writing for legal reviews and editing reports. In 1844, for the first time he showed the effects of long-continued and prodigious over-exertion; he fell seriously ill, and his life was despaired of. He recovered, but was indifferent to life,—could not feel any gratitude for restoration to it. It is exceedingly suggestive that, after so many years of assiduous, enthusiastic reaching after a certain ideal, sparing no exertion that might be needed to attain to it, he should just at this time have begun to feel the agony of slow, consuming doubt as to his career, which is so much worse than final defeat. Sumner had not progressed as a practitioner; he was disappointed at not being asked to take a place in the Harvard law school on Judge Story's death; meantime, thirteen years had passed since his brilliant start in the study of his profession. His friends had somewhat doubted the wisdom of his long stay in Europe, though he had not. Now, however, the breadth and leisure of his preparation for an active part in the world seems to have brought doubt and despondency into even his own mind, hitherto confident of final success. But it was in the very next year that his first and wholly convincing triumph came. On July 4, 1845, Sumner delivered the great oration advocating universal peace, which drew attention from every quarter, and established his fame. Before this, while in Europe, he had so far entered political discussion as to publish in "*Galignani*" a long article on the Maine boundary dispute, which threatened war between the United States and England; and in 1842 and 1843, he had contributed to the "*Boston Advertiser*" long articles supporting England's right to search vessels suspected of being slavers, and discussing our national duty as to slavery; but he had as yet no thought of a political career. The oration on "*The True Grandeur of Nations*" decided his future. Hitherto but slightly connected with the abolitionists, in a few years he became not the least of their leaders. He had already, in private, put himself into opposition to Webster. "I bow to Webster's intellect; it is transcendent, magnificent. * * * But where slavery occurs, he falls like Lucifer!" "Webster wants sympathy with the mass,—with humanity, with truth." And, from questioning the soundness of Channing's reasoning, he had come to feel that the preacher's moral insight surpassed all standards of mere logic. He wrote to a friend that Webster with Channing's moral sublimity would be "a prophet"—not seeing that what the country needed was perhaps not a prophet, but a preserver. The idealist who dreamed of universal peace was more ready for war, when it seemed justifiable, than the conservative statesman.

We have pointed out the value of this biography as revealing the deep source of Sumner's power in early and incessant preparation for dealing with great subjects; but it is also valuable as showing how the same dogged persistence which gave Sumner his high place, in the end warped him from the

jurist and made him more a theorist and a reformer. In so far, it defeated its own intent. The resoluteness that won success against all opposition narrowed his view by making it impossible for him to abandon an idea once taken. Moreover, it made him appear inconsistent, for in expressing different sides of truth, he went to extremes without giving the connection which existed in his own mind. Sumner lacked humility, but in his youth, no less than in his later and more conspicuous years, we find always noble aims and unflinching obedience to conscience. For the dignified, unobtrusive way in which he has presented his subject, Mr. Pierce deserves cordial praise.

"The House Beautiful," by Clarence Cook.*

THIS is the first book of which Mr. Clarence Cook is known to be the author, with the exception of an illustrated volume on the Central Park, and text accompanying reproductions of Dürer's "Life of the Virgin." His reputation has been gained mainly by contributions to the daily press. For many years his criticisms on contemporaneous art were almost the only writings of the kind published in American newspapers which were not rendered worthless by the spirit of complaisance and compliment. He may sometimes have been needlessly bitter; but it must be remembered that he was making a lonely and desperate fight for critical independence, and in the interest of what he considered true art. He may not have been consistent throughout a critical career which has covered a good many years; but he has been too intelligent and too honest to aim at, or to pretend to, consistency.

In the present work, however, Mr. Cook appears, not merely as a critic, but also in the more genial rôle of teacher. Teaching—that is, lecturing to classes of young people on art and literature—has, in fact, been Mr. Cook's business, most of the time, for the last twenty years or more, and is, we believe, the occupation most agreeable with his inclination. In book-form, rewritten, re-arranged and rechristened, the "Beds and Tables, Stools and Candlesticks" essays appear to us an admirable piece of literary work. It is, in fact, the first book of the kind, in English, which has a literary, as well as a "practical," interest. These long chapters on "The Entrance," "The Living-Room," "The Dining-Room" and "The Bedroom," which might have been dull reading enough, are "as interesting as a story." Their discursiveness makes a part of their charm and their utility, and the bits of prose and verse from Sidney, Goldsmith, Emerson, Leigh Hunt, Ben Jonson, that we find between the chapters, have the effect of so many exquisite etchings appropriately hung in a room furnished with taste and refinement. As to the outside, the large, clear page of type and the rich and original drawings have been very

carefully printed by Francis Hart & Co., and the volume is embellished with a frontispiece in color by Walter Crane, and a cover-stamp designed by Cottier.

If any person, suddenly awakened to the necessity of furnishing or refurnishing "artistically" should run to "The House Beautiful" for "plans and specifications," he will be sure to find the book most provokingly "unpractical." But if those who do not undertake the business by the wholesale, or merely for the sake of show and fashion, will look into it for advice and suggestion, they will find it quite practical enough for their purpose, and delightfully suggestive. The following passage from the chapter on "The Living-Room" gives the author's own reason for his methods:

"Fault has been found with me, good-naturedly enough, but I venture to think mistakenly, for the number of elegant and costly things I introduced into the articles in SCRIBNER'S MAGAZINE, from which this book is made up, and I am to little repent for what I have done that I have not left a single one of these elegant and costly things out of the book itself. This is not because it is every now and then possible to purchase a fine piece of furniture—artistically fine, I mean—very cheap, but because I think we need in this country to be made as familiar as possible with the look of beautiful things of this sort. A drawing like this is a lesson in good taste, and it happens to be, like many another in this book, a threefold lesson. We have, in the first place, a very elegant and interesting piece of furniture, and this has been drawn with spirit and picturesqueness by Mr. Francis Lathrop, and then engraved with the hand of a genuine master by Mr. Henry Marsh.

"Now, the improvement of the public taste, if that be not too presumptuous an aim, is one of the principal objects of this book of mine, and it seems to me I can do something toward this end by showing beautiful things, even if they are, not seldom, out of reach, as well as by always complying with the demand that I shall show people how to get things cheap.

"It happens that the piece of furniture under discussion gave so much pleasure to one reader of SCRIBNER'S MAGAZINE when the cut was published there, that she determined to have one as near like it as she could contrive. She had the body of the piece made as neatly as her favorite carpenter could do it,—and he was a skillful workman and did his best,—and then with her own hands she painted all the ornaments, in colors, not attempting to imitate the brass, and filled in the panel of the door with a painting on silk which had belonged to a great-grandmother, and might have been painted by Angelica Kauffman herself, so far as age was concerned. It is true this lady had exceptional taste, and exceptional skill in carrying out her designs, but nothing extraordinary, and many a one could have done the same. The result of this venture was a piece of furniture that does not look as if it were copied from any model, and that deserves to be admired for its own sake."

It is one of the good points of "The House Beautiful" that it is not likely to give rise to any new brand; we will not find "Clarence Cook furniture" from cellar to basement in half the houses we enter, especially of the "newly marrieds." He inculcates no mannerism,—rides no hobbies, except the good old ones of common sense, simplicity, use and beauty. It is an open secret—that is, to those who read attentively no secret at all—that the author, through long experience, has learned how to furnish a house, if not perfectly, certainly much nearer perfection than most of us are ever likely to get. It has not been in Mr. Cook's line to furnish a house for any one save himself; but in these chapters all the communicable knowledge of a man of unusual taste and general culture, who has, moreover, enjoyed special training in drawing and in architecture, and who has given an unconscionable amount of thought and bother to "beds and tables, stools and candlesticks," is generously spread out for the reproof and edification of his countrymen. In tell-

*The House Beautiful: Essays on Beds and Tables, Stools and Candlesticks. By Clarence Cook (with one hundred wood engravings and an original frontispiece in colors, by Walter Crane). New York: Scribner, Armstrong & Co.

ing so frankly and fully and persuasively what he has himself learned in manifold trials and tribulations, he has not only conferred an immediate favor upon a great many worthy persons, but he has done something which is sure to help toward that end which the hopeful never despair of,—and our author acknowledges himself one of the hopeful,—the “general improvement of the public taste.”

The English critic, Walter H. Pater, in a recent essay on “Romanticism,” calls “the true æsthetic critic” the Interpreter of “that House Beautiful which the creative minds of all generations—the artists, and those who have treated life in the spirit of art—are always building together for the refreshment of the human spirit.” Mr. Pater’s happy use of the familiar expression might have suggested the title of the present work,—although we happen to know that it did not. Certainly our author is an interpreter, to whom a great multitude of pilgrims will be grateful for services here performed, and whose guidance in other rooms of the House Beautiful we shall all be glad to claim. The next in order are the galleries where hang the paintings of “Some of the Old Masters.”

Jacquemart’s “History of Ceramic Art.”*

THE publication in this country of a second edition of so expensive a book as Jacquemart’s “History of the Ceramic Art” is one of many signs showing a great increase of popular interest in the subject. It would be curious to inquire how the interest arose, in the first place, in any country, especially how it came to interest Americans, so far away as they are from collections and the contagion of Europe’s example. But, besides that the inquiry would prove more curious than useful, it could never be satisfied. There is no how or why. All we know is, that pottery has been dear to man in all ages and in all countries, and there is no reason why the inborn germ should not spring to life here as well as elsewhere. If we had no collections, we could make them, and it might not unreasonably be hoped we should make the pottery too in time. There can be little doubt, however, that, so far as cultivating the inborn taste of our Americans is concerned, we are much indebted to the books of Mr. Albert Jacquemart. There has been no work on the general subject of the art of pottery so winning to look at as his “*Merveilles de la Céramique*,” in three pretty little volumes, published in Paris in 1868. Other books there were, and are, among them notably Chaffers and Marryat, which played a great part in what we may fairly call the revival of pottery. But these books are so costly as to keep them out of the hands of any but rich amateurs. The little volumes of Jacquemart, on the other hand, were not only pretty, but cheap, and this, too, although the wood-cuts with which they were profusely illustrated (the three volumes having over three hundred wood-cuts in

all) were engraved as well as designed by the son of the author, Mr. Jules Jacquemart, one of the first engravers and etchers of his time.

In 1873, the author of “*Les Merveilles de la Céramique*” published the volume we are now writing about, “*L’Histoire de la Céramique*,” which contains in a larger form all the matter of the earlier book, with all its wood-cuts and monograms, and in addition to these, twelve etchings by the hand of the same distinguished artist. This work was translated into English by Mrs. Bury Palliser, the accomplished author of “*The History of Lace*,” and it is this work, enriched with all the illustrations of the original French work, that the American publishers have put into our hands at a greatly reduced price. Mr. Albert Jacquemart died October 14th, 1875, leaving behind him an enviable reputation, not only as a most agreeable as well as learned writer on his favorite subject, but also as a collector of taste and discrimination. “One of the most modest of men,” says “*L’Art*,” in its obituary notice, “he took as much pains to keep in the background in order that he might devote himself without interruption to his favorite studies as some men do to make themselves conspicuous and to talk about themselves, and get themselves talked about, in season and out of season.” He delighted in the beautiful work of his son, Mr. Jules Jacquemart, and esteemed himself a happy man in having such a collaborator; for all his books were illustrated by this son with wood-cuts and etchings, and fortunate he to whose share has fallen, among other good things of the world, early impressions of these ornaments of our time.

Mr. Jacquemart’s book is republished in this country at an opportune time. Just now a great many people are amusing themselves with collecting china and studying the collections made by others, and while the Castellani collection is still for a little while with us, we have the rare opportunity (which we ought never to have let pass from us, and which our descendants will not forgive us for having let pass from us) of comparing the illustrations of Italian pottery in this book with the most beautiful specimens of that pottery to be seen anywhere in the world. The Avery collection, also in the Metropolitan Museum, will furnish splendid illustrations of the Oriental productions in this art, and the Prime collection will enable us to study from “the life” many rare European manufactures. Meanwhile, in the Di Cesnola rooms of the museum we have a treasure of early Greek forms such as can be found nowhere else in such variety and abundance, and the purchaser of Jacquemart’s book, with these rich means of study at hand, will find the beautiful volume not only a trusty history, but a most useful guide.

“The Story of Avis,” by Miss Phelps.*

HERE is a novel which is so essentially feminine in its weaknesses and good points that it seems

* *History of the Ceramic Art. A Descriptive and Philosophical Study of the Pottery of all Ages and all Nations.* By Albert Jacquemart. Translated by Mrs. Bury Palliser. Second Edition. New York: Scribner, Armstrong & Co.

* *The Story of Avis.* By Elizabeth Stuart Phelps. Author of “*Gates Ajar*.” Boston: James R. Osgood & Co. 1877.

almost a dastardly thing to treat it on the common level of new books; to ridicule it is like insulting a lady, and to denounce it like taking advantage of a weaker person. But criticism cannot respect such whims as this; the novel must be judged on its own merits, whether the style makes a personally feminine appeal or not; there are other women who know how to write in a style that bears comparison with the work of the best men. "The Story of Avis" is about a woman, and she is thus introduced:

"Avis Dobell, sitting in the shadowed corner of the president's parlor that night, had happened to place herself against some very heavy drapery, which clasped two warm arms of intense color across the chill of a bay-window. The color was that called variously and lawlessly by upholsterers, cranberry, garnet, or ponce; known to artists as carmine. " " In the gas-light and fire-light of the room the insensate piece of cloth took on a strange and vivid life, and seemed to throb as if it held some inarticulate passion, like that of a subject soul. Coy or Barbara would have known better than to have ventured their complexions against this trying background. Avis went to it as straight as a bird to a light-house on a dark night. She would have beaten herself against that color, like those very birds against the glowing glass, and been happy, even if she had beaten her soul out with it as they did."

Naturally after this Avis must be a great "colorist." She has been studying art for many years in Italy and France, and has just returned to her father, who is professor in a New England college. The novel is chiefly concerned with her endeavor and failure to devote herself to her art instead of marrying the young tutor, Ostrander, a man with a musical voice of exquisite modulations, with songs and brooks in it,—a budding professor of geology with looks like "a young Scandinavian god." The two meet, but not for the first time they find, at a highly æsthetic "Chaucer Club," where Avis exhibits "a sketch in charcoal, strongly but not roughly laid in, and preserved by a shellac which lent a soft color, like that of a very old print, to the paper." The simile just quoted in regard to the light-house and the birds who kill themselves, receives an amplification a little further on. Avis being the Latin for bird, their is an obvious parallel between those luckless wild-fowl and Avis who dashes herself upon her love for Ostrander. So Miss Phelps writes:

"While the current of these delicate human lives swept softly on in their elected channels, long waves thundered against the harbor light. Miles away through the night some homeless bird took wing for the burning bosom of the reflector, and straight, straight—led as unerringly as instinct leads, as tenderly as love constrains, as brutally as nature cheats, with a glad fluttering at the delicate throat, with a trustful quiver of the flashing wings, like the bending of a harebell, like the breath of an arrow—came swaying; was tossed, was torn, and fell."

Avis and the people about her are cast in a mold which it is tame to call ideal; they are so superior that the mind of New York cowers before them. The adjectives which abound in these pages are equally superior and equally amazing to the humdrum intellect. Not only are the attitudes of the girls "lithe," but their nails are "clear cut, cool and conscious;" their natures have "muscles." The

illuminated hours of our first youth have a "piercing splendor," and at sixteen, Avis has "one of these phosphorescent hours." She stands "with her slender thumb piercing her palette," and a "tidal wave of color surges across her face." Ostrander, for his part, is supposed to enjoy a winter storm so much that he "flung himself upon the freezing rocks, possessed with a kind of fierce but abundant joy." It was on this occasion that he saw Avis. "She stood out against the ice-covered rock like a creature sprung from it, sculptured, primeval, born of the storm." Miss Phelps does not lack a satirical touch every now and then, sometimes rather too quickly alternating with magniloquent passages, but her humor must have deserted her when she makes Ostrander say, in the very tenderest part of his courtship:

"Do you see the bees on the *wigilia*?"

Perhaps to such botanic souls *wigilia* is as common as clover. They certainly would never descend to "Dutchman's breeches." Perhaps only they can fully understand the beauty of a sentiment like the following. Ostrander has been definitely refused by Avis, and decides to enlist as a surgeon in the Army of the Potomac and never return to the college town: "One man would answer as well as another to fill any mold, unless, perhaps the chalices of life; and it could hardly be said that the veins of his nature throbbed with sacramental wine, only a serviceable, secular brand."

But there is no use multiplying such examples. The author is suffering from the common complaint called "gush," and many of her sentences are little better than those of the authoress of "St. Elmo." There are fastidious readers who will be so disgusted by one such expression that nothing can bring them to an acknowledgment of any good in the book. Yet, in spite of these great blemishes, the novel is interesting,—almost absorbing. It is exactly similar in its effect to those women all of us have met, who irritate the nerves continually by the redundancy and over-fervidness of their talk, yet compel us to listen. Miss Phelps, for all her unreality and overtraining, does say many good things that show a knowledge of human nature. Her very boldness and excess may have an attraction, but she also has more deserving qualities. She reads women excellently, in spite of the alarming pedestal she hoists them upon. The fault of her literary work is not in the conception, but in the execution. There is a certain likeness in style between this book and Robert Buchanan's "Shadow of the Sword." In both the limits between prose and poetry are confused, so that it would be hard to tell whether rhythmical blank verse had been written out without breakage into lines, or prose had been forced into the rhythm of poetry.

Mrs. Burnett's "Surlly Tim and other Stories." *

In reading most of even our cleverest story-writers, we feel that the places where we are likely

* New York: Scribner, Armstrong & Co.

to be disappointed are really the important places. The characters are cleverly described, both in repose and in action, but we courteously consider the main points made, rather than strongly feel them. With Mrs. Burnett's stories it is otherwise. She succeeds best where it is most important to succeed. There may be uncertainty in minor passages, but the "main point" is made with unerring accuracy and with a force that may, without exaggeration, be called tremendous. Since Bret Harte's first and best volumes of short stories, there has been no similar collection published of equal originality and power with this. Mrs. Burnett has not as delicate a touch as is shown in Bret Harte's best work, nor has she as strong and disseminating an individuality (if we may thus describe the kind of originality which gives rise to "schools" in literature), but she has as great, if not greater, dramatic power, and seems to possess a wider range.

Indeed, the dramatic intensity of these stories might be unendurable were it not relieved by a vivid and refined humor. To say that there are humorous passages in "Esmeralda" and "Lodusk" that Dickens or Harte might be glad to own, is not to say that Mrs. Burnett is an imitator of either. It will be interesting to see what sort of a career this young author makes, with her extraordinary talents. The not unhealthy youthful sentimentality of her early writings is gradually passing away. Her field of observation has widened, and her observation itself is more correct. There are some types of character which she has not yet mastered, and yet has not refrained from writing about; but, if her capacity to "take culture" proves as great in the future as it has been in the past, Mrs. Burnett will give us books not less heart-compelling than "That Lass o' Lowrie's," yet of a still firmer and more enduring artistic quality.

Attention should be called to the "Author's Note," which says that "That Lass o' Lowrie's" and the present volume are the only works issued under her name which have been prepared and corrected for publication in book form under her personal supervision."

"Worthy Women of our First Century."*

HOWEVER much the next century may amuse itself over our speculative agonies upon woman's place in the universe, there will be some among the serious-minded, let us hope, who will take pains to point out that we did not wholly lose sight of certain practical and real aspects of woman herself. The biographical sketches which comprise the volume edited by Mrs. Wister and Miss Irwin, and still more, we may add, the plan of the book itself, indicate the ideal of womanly excellence held by those who officially represented the sex in the United States at the end of our first century. It is something to know, when one is tired of serious discussion and angry over the senseless chatter respecting women, to be reminded that the womanliness of

woman is what endures in all the changing aspects of her legal and industrial relations, and to be refreshed by a glance at literary portraits which are charming in themselves and very suggestive of different phases of life and society in which our grandfathers and their parents moved.

The two ladies who edit this volume indicate briefly in the preface the difficulties which they met, in endeavoring to secure characteristic figures from the original thirteen states for their gallery of heroic women. They intimate that, while they have failed so far to complete the number, the publication of the six sketches comprised in this volume may lead to a noble envy which will call out seven other worthy companion pieces. Let us be thankful for what we have. Miss S. N. Randolph writes the sketch of Jefferson's daughter, Mrs. Martha Jefferson Randolph; Miss Susan Fenimore Cooper, that of General Philip Schuyler's wife; Miss Elizabeth Hoar, that of Mrs. Samuel Ripley of Massachusetts; Mrs. Francis W. Fiske, not confining herself to a single character, sketches characteristics of New Hampshire women; and an anonymous writer from South Carolina contributes a brief, picturesque account of Mrs. Rebecca Motte, and Mrs. Wister closes the volume with a lively biography of Deborah Logan.

The title of the book, and the fact of its emanating from a committee, are likely to create a prejudice against it in the mind of the reader, somewhat fatigued with patriotic literature and perfunctory reports; but really the chief objection to the book is the teasing manner in which private letters and journals are half opened and then shut hastily against the too inquisitive reader. The material is, in most cases, so fresh and piquant that we are ready to protest against so insufficient a use. Why should we not have a good hearty book about Mrs. Ripley? Why may we not see more of Deborah Logan and Sally Wister? Perhaps it is unfair to grumble as soon as we have finished the book; but we are sure that every reader will rise hungry from the feast.

Better than all, the glimpses given here of the diversity of domestic life in our first century make a thoroughly good contribution to the educative influences of our centennial reminiscences. Such portraits as these help us to understand our history and give us courage for the future. We are properly solicitous to have an "examination for women" successful; but however much general culture may advance, the picture of Mrs. Ripley at once shelling peas and hearing a recitation in Greek or philosophy is likely to make our theories seem at first vague abstractions. We come back, however, to the more assuring reflection that the movements in the direction of higher education have no obscure association with the memory of this worthy woman's achievements.

Two Books for Children.

"THE Bodley Family," under the direction of Mr. Horace E. Scudder, are in a fair way to be enrolled as juvenile classics. The doings of this famous family in town and country furnished the material for one of the most delightful books of the season

* Worthy Women of our First Century. Edited by Mrs. O. J. Wister and Miss Agnes Irwin. Philadelphia: J. B. Lippincott & Co.

of 1875, and in this dainty quarto* we have a fresh collection of stories, verses, poems, and sketches for the delectation of the children. For that matter, we fancy that there are very few well-read people of mature years who will not turn these pages with delight. Here are many of the prime favorites of our childhood, both in prose and verse. The author and editor has combined within his covers some of the very best selections which it is possible to give to reading children. Stories of the Northmen, Evangeline and Gabriel, the fight between the "Constitution" and the "Guerrière," Picciola, and many more in prose and rhyme are retold for the Bodley family, whose comments and doings are naturally interwoven with the author's borrowings. It must not be supposed that the Bodleys are invented for the purpose of having the stories told to them. Far from it; the Bodleys are all very much alive. "Phippy," who did not like her name, and who had a way of putting it aside like a torn dress every now and then and arraying herself in a new and more charming one, is a real little girl who has her counterpart in more than one family that we know. And the ingenious "Cousin Ned," who used to tell stories in which he accompanied himself with divers mechanical appliances, was not only a capital good fellow, but he much resembled a certain young uncle who certainly yet "lives and moves and has his being." The pretty little songs, with music printed for young players and singers, give a new attraction to the volume. Nor should we fail to notice the pretty, though rather bizarre, binding. Of course there are illustrations, plenty of them, big and little, and all admirably designed to tell their own story to the eager eyes that will peruse them.

Some such another book, though made for children of tenderer years (who are expected to claim the services of their mothers in reading and explanation), is "Baby Days,"† a judiciously collected volume of the best things published, principally, in the "Very Little Folks" department of ST. NICHOLAS. When we have said so much it seems as if we had said all that was needed to describe the book.

Mrs. Dodge has again manifested her rare judgment in making just such a choice for her young readers as will be sure to please, and sure to leave the best impression. And it was a happy thought to gather into one sheaf the humorous, witty, grave and tender things which have gladdened the hearts of so many little people. Here are many first-rate things like the "Miss Muffet rhymes," "John Bottleneck," and "Grandma's Nap." The pictures, we need not say, are wonderfully clever,—for did they not come out of ST. NICHOLAS? The dress of the book is bright and attractive (the cover having been drawn by Miss Curtis and Mr. Moran from Mr. Drake's design), and a glance through the leaves will be sure to fix the wandering fancy of any child who does not cry for the moon.

* The Bodleys Telling Stories. By the Author of "Doings of the Bodley Family in Town and Country," "Dream Children," etc. New York: Hurd & Houghton.

† Baby Days. A Collection of Songs, Stories and Pictures for Very Little Folks. With an Introduction by the Editor of ST. NICHOLAS. 300 Illustrations. N. Y.: Scribner & Co. Pp. 189.

New English Books.

LONDON, Oct. 6.

What will turn out probably to be one of the best books of the season is the first portion of the "History of England in the Eighteenth Century," by William Edward Hartpole Lecky, M. A., author of the "History of Rationalism," etc., volumes 1 and 2, A. D. 1700-1760. This installment, it thus appears, will extend over more than half the time specified for the history, so that the size of the work will not be so large as to protract its conclusion beyond a reasonable period, and with the example of Macaulay to take warning by, Mr. Lecky will no doubt avoid the fatal mistake of aiming to leave nothing untold. It is well known that a history of this period was the cherished project of Thackeray, whose "Henry Esmond" shows how completely he had imbibed the spirit of the Queen Anne writers. A book of sterling merit may be expected from Mr. Lecky, who is yet a young man, with every advantage of position, leisure, etc., enabling him to do justice to any subject he may devote himself to. In public opinion, he seems to be generally coupled with Mr. Buckle, whose brilliant paradoxes have taken deep hold of younger readers; but as a historian, of whom calm, unbiased judgment, combined with exhaustless study of all available material, is required, Mr. Lecky will be placed far above his contemporary. Other important historical works to be looked for speedily are "The Personal Government of Charles the First, from the Death of Buckingham to the Declaration of the Judges in favor of Ship-Money, 1628-37," by Professor S. R. Gardiner of King's College, 2 volumes: this is another installment of a history of the times preceding the Commonwealth in England that has steadily won its way in public estimation until the early volumes are quite unprocurable; "History of Rome," by William Ihne, the distinguished German scholar, volume third of the English edition, revised and translated by the author; "The History of Antiquity," by Professor Max Duncker, translated by Evelyn Abbott, M. A., of Balliol College, Oxford; "The History of the Sepoy War in Hindostan," left unfinished by Sir John Kaye, and to be completed by Colonel G. M. Matteson, who takes up the narrative from the end of the second volume of Sir J. Kaye's work; "History of the War of Frederick the First against the Communes of Lombardy," a translation from the Italian of Chevalier G. B. Testa, revised by the author. The original has been received with high distinction on the Continent, and will be valuable in England, as throwing light on one of the great turning-points of modern history, scarcely treated of by any historian in our language. A book strictly historical, enriched with technical views from a competent source, is "Great Campaigns, a Succinct Account of the Principal Military Operations in Europe from 1796 to 1870." The author, Major Adams, Professor of Military History at the Staff College, not living to complete the work, it is edited from his papers by Captain Cooper King. The long-looked-for library edition of Mr. Green's "History

of the English People," and the final completion of D'Aubigné's "History of the Reformation in Europe in the time of Calvin," by the issue of the eighth volume, may be added to this brief enumeration, as also "Democracy in Europe,"—"A History," as it is expressly called by the author, Sir Thomas Erskine May, whose continuation of "Hallam's Constitutional History" is in all our libraries. In biography a few leading books may be mentioned as forthcoming:—"The Life and Times of Sir Robert Walpole," by A. C. Ewald, 8vo; "Memorials of Charlotte Williams Wynn," a lady of the Georgian era, whose "Diaries of a Lady of Quality" were edited by Mr. Hayward, a few years ago; "Memoirs of Lord Melbourne," the famous English premier, by J. McCullagh Torrens, M.P.; "The Life of Pius IX.," by Thomas Adolphus Trollope, 2 vols., 8vo. Mr. Trollope's long residence in Italy, and intimate knowledge of the country, well qualify him to do justice to that task; and it seems that authors regard the subject as so promising that they seize on it without waiting for the time when it would be more naturally "in order." A similar enterprise with Mr. Carlyle for its theme has been checked at the desire of the patient. A "Memoir of King Charles the Twelfth of Sweden," introduces us to a royal author,—his Majesty, Oscar the Second, King of Norway and Sweden, who desires to place the reputation of his illustrious predecessor on a firmer basis than the half mythical narrative of Voltaire, who wrote as an artist mainly for effect, without being very solicitous for historical truth. Foreign literature will be amply represented in many works, as "The Life and Writings of Lessing," by James Sime, M.A., in 2 volumes,—a book intended to rank with the "Lives" of Goethe and Schiller, by Lewes and Carlyle, and to furnish an exhaustive study of the life and works of the influential, though in England, comparatively little-known, scholar. Lessing will also be the subject of another book, by Miss Helen Zimmern, the biographer of Schopenhauer. "The Autobiography of Madame de Staël (Mdlle. de Launay)" is known from its vivid pictures of life in the old French court, in the first half of the last century, and is translated by Miss Selina Bunbury. "Niccolo Macchiavelli and his Times," is a translation from the original of Prof. Villani. "The Life of Wiclif," by Gerhard Victor Lechler, is translated from the original by Dr. Lorimer. Prof. Lechler's "History of English Deism" is referred to as the standard authority on the subject by all modern writers, and proves the vast acquaintance of the author with English theological literature, and his competence to do justice to the career of the first Reformer. "The Story of My Life," by the late Col. Meadows Taylor, is an autobiography of a gentleman well known by his novels of Hindostanee life ("Tara,"

"Adventures of a Thug," etc.), as well as by a distinguished professional career. It will be edited by his daughter, and prepared by Henry Reeve. "The Life of Mozart," from the German of Dr. Ludwig Nohl, is translated by Lady Wallace, in 2 volumes, post 8vo. The "Memoir of Dr. Walter Farquhar Hook, Dean of Chichester," by Rev. W. R. Stephens, will perpetuate the memory of one who stood among the foremost churchmen of his day in the promotion and encouragement of all good works.

One of the greatest successes of the year is Captain Burnaby's dashing "On Horseback through Asia Minor," and this is the case, not from any connection of its subject with the Eastern war, but simply from the pleasure derived from a spirited narrative of adventure related with unflagging good humor.

Mr. Stanley is understood to be engaged in the preparation of a narrative of his adventures, though nothing certain about it may be known until his arrival here. Other books of travel are: "The Rev. of Bolivia, or War, Peace, and Adventure in the Republic of Venezuela," by J. M. Spence; "Under the Balkans: Notes of a Visit to the District of Philippopolis in 1876," by R. Jasper More, crown 8vo; "Travels in the Footsteps of Bruce in Algeria and Tunis," by Lieutenant-Colonel Playfair, with fac-simile illustrations from drawings by Bruce, now first published, taken during the time when the great traveler was preparing himself for his Abyssinian exploration, and in districts of North Africa scarcely explored since that date; "The Asiatic Provinces of Russia (Caucasus, Orenburg and Turkistan)," by Lieutenant Hugo Sturm, from the German, by Henry Austin Lee, of the Foreign Office; "Burma, Past and Present, with Personal Reminiscences of the Country," by Major-General Albert Fytche; "Pioneering in South Brazil: Three Years of Forest and Prairie Life in the Province of Parana," by T. Begg Wither, and "Livingstonia: Journal of Adventures in Exploring the Lake Nyassa, and in Establishing the above Settlement," by E. D. Young, R. N., and Rev. Horace Waller, the Editor of Livingston's last Journals, in 8vo.

For presents this year, preference seems given to handsome copies of standard books. An elegant work comprising both requisites is "English Pictures, Drawn with Pencil and Pen," by Rev. S. Manning and Rev. S. G. Green, whose pages will awaken reminiscences of many a charming nook of English "greenery" and scenes of old renown. Young people will find a wealth of amusement in "The Christmas Story-Teller: A Medley for the Season of Turkey and Mince-pie, Pantomime and Plum-pudding, Smiles, Tears and Frolics, Charades, Ghosts and Christmas-trees," while their scientific tastes will be gratified by a profusely illustrated little book, "The Home Naturalist."

THE WORLD'S WORK.

Progress in Telephony.

THE speaking telegraph, or telephone, has now passed the experimental stage and is in daily use for commercial purposes. There are two forms of telephone. One of these is made in the shape of a small wooden tube, of a size convenient for the hand. At one end is a mouth-piece that may be placed at the mouth, as a transmitting device for speaking, or as a receiver, to be held to the ear in listening to a message. Within the opening of the tube is secured an iron diaphragm, free to vibrate within a limited distance. At the back of this is a coil of fine wire wound round a bar of soft iron that extends through the wooden handle and is fastened at the opposite end with a set-screw. This coil is composed of insulated wire, and each end passes through the wooden handle to screws that may be used to connect it with the line wires. One end goes to earth, the other to the stations on the circuit. At the other end of the line, and at all way-stations, the same apparatus is employed, and this makes all the new machinery required on lines of moderate length. On sending a message through the telephone, the instrument is placed before the mouth and the words are spoken into it. The vibrations of the voice cause the diaphragm to vibrate, and its motion so affects the bar of iron that an electrical current is developed in the coil, and this current, traversing the line, causes the receiving instrument to repeat these vibrations on the diaphragm held before the listener's ear. The receiving diaphragm gives its vibrations to the air confined within the open end of the instrument and the listener's ear, and he hears the words spoken before the transmitter at the distant end of the line, as a soft but perfectly distinct whisper. The vibrations given to the air are exceedingly delicate and cannot be heard much beyond the instrument, but this is not an inconvenience, as the instrument is easily held to the ear. For way-stations, a loop is made in the line, and by passing the loop through one of these instruments, every word passing on the line may be heard. For calling attention, a bell signal is used that may be operated at either end of the line. For branches and central offices, switch-boards, etc., are provided as in ordinary telegraphing. This style of telephone is reported to work well in sending messages from the lower depths of coal-mines to the surface. Hitherto, telegraphs have not been successful in mines, and, if this report is correct, a new field is opened for telephony. The other form of telephone is essentially different in construction and apparatus. It employs a battery, and the transmitting and receiving appliances are quite distinct. The receiving instrument consists of a small electro-magnet inclosed in a wooden box that may be conveniently held to the ear. Before the electro-magnet is a diaphragm of iron, fully exposed so that in use, it may be laid directly against

the ear. This diaphragm is free to vibrate as it is magnetized or demagnetized by the varying electrical condition of the electro-magnet. The transmitting apparatus is inclosed in a small box and has a mouth-piece that carries an exceedingly thin diaphragm of mica, that is free to vibrate within certain limits. Over this is spread a delicate film of rubber, fastened down tightly at the edges. This is designed to act as a damper, to check or dampen the excessive harmonic vibrations that may accompany some sound vibrations sent through the apparatus. At the back of this diaphragm is secured a small wad of raw silk that has been rubbed in powdered plumbago. This graphite has the property of offering less or more resistance to an electrical current passing through it according to the pressure to which it may be subjected, and this property has been made of use in this form of telephone. The vibrations of the mica diaphragm, when moved by sound vibrations, change the pressure upon the mass of graphite held in the wad of silk, and this change of pressure changes its electrical resistance, and these changes of electrical resistance re-appear in the electro-magnet in the receiving instrument at the other end of the line. These are the novel features of this form of telephone, all the other parts being essentially the same as those used on an ordinary telegraph line, except that all the usual Morse instruments may be omitted. It is not here intended to make any comparison between these two remarkable inventions, but to record the fact that they are now both available for the ordinary demands of trade and business. Each transmits words in any language, easily and clearly, whether spoken or sung, sending equally well both tones or noises. The musical telephone is constructed upon quite another plan, and will be described as soon as proper investigations have been made. Both of the speaking telephones will transmit concerted vocal music and some forms of instrumental music, but, in this case, each singer must have a transmitting apparatus, and only those who hold the receivers to the ear can hear the tones of the united voices.

New Sounding Apparatus.

THE new sounding apparatus used for deep-sea sounding on some recent scientific voyages has been applied to the comparatively shallow soundings made on commercial ships and steamers. The apparatus consists of a sounding-line 100 fathoms long made of fine piano-forte wire. To this is attached a heavy iron sinker, and above this a brass tube about 60 centimeters long, closed at the bottom and fitted with a screw-cap at the top that has a small hole in it so that the water may be admitted to the tube. Within this is placed a glass tube tightly closed at one end and lined on the inside with a mixture of starch and red prussiate of potash. In using the apparatus, it is not necessary to stop

the ship as the soundings are made while the steamer is running at full speed. To make a sounding, a small quantity of a solution of sulphate of iron is poured into the tube, and the prepared glass tube is plunged in this, so that the open end is sunk in the solution and inclosing a small quantity of air within the tube above the solution. The cap is fitted on the top of the brass tube, and the sinker is let fall from the stern. The wire runs out at great speed, and when it slackens, or reaches the estimated depth, a brake is applied, and, by the aid of a crank, the wire is wound in without much effort and is coiled on a reel made for the purpose. The wire offers very little resistance to the water, and the whole operation seldom takes more than a few minutes. On recovering the brass tube, it is found that the sulphate of iron has been forced up inside the glass tube by the pressure of the water, and by chemical action staining the inside of the tube a deep blue. On comparing the stained part of the tube with a gauge, the depth of the water may be ascertained in fathoms by the proportion of the stained part of the tube, and the tube thus becomes a permanent record or "log" of the pressure, and hence of the depth of the water. To make another sounding, a fresh tube is used, and a stock of prepared glass tubes must be taken on the voyage. These tubes can be afterward cleaned and recharged with the red prussiate of potash at a slight expense. The apparatus is light, strong and durable, and has been found to work accurately under the rough usage of a voyage.

Electrical deposition of Metals.

From a number of experiments in the electrical deposition of metals recently made by Professor A. W. Wright of New Haven, it has been found that films of gold, iron, bismuth, silver and other metals can be laid on glass in a manner that promises to give even more valuable results than can be obtained from the common electro-plating process. The work is carried on within a hollow glass vessel from which the air is excluded. The two ends of an induction coil are brought into this vessel, and to the negative pole of the coil is attached a small piece of the metal to be deposited. The object to be plated—glass or silver—is suspended between the two poles of the coil. By the aid of a battery, a powerful spark is sent through the coil, and the gold or other metal is partially vaporized by the heat. This metallic vapor condenses, like dew, on the cold glass, and immediately cools, forming a metallic film of exceeding fineness upon the glass. A second spark again vaporizes the metal, and another film condenses on the first coat. In like manner, any number of films or coats are laid one over another till the desired thickness of deposit is obtained. Metallic films thus laid on glass are of excessive fineness, and cling to the glass with extreme tenacity. The metallic deposits obtained by this process will be valuable in a variety of scientific investigations, and will doubtless prove useful in the construction of mirrors for telescopes, heliostats and other optical instruments. Films of gold of an esti-

mated thickness of only 0.000183 millimeters have been obtained, and it is suggested that these exceedingly thin sheets of metal may be useful in investigating their character in transmitted light. Such films of gold, held before the light, show the characteristic green color of gold. Professor Wright's process will undoubtedly lead to new and useful improvements in the art of depositing metals. The mirrors thus made from vaporized iron, platinum or silver are of a remarkably pure and brilliant character.

The Aleurometer.

THIS instrument is designed to take the place of some of the more simple though perhaps inexact methods used in testing flour. It serves to measure the elasticity of the gluten in flour by recording the expansion of the gluten under the influence of heat and moisture. Wheat for baking depends on the elastic quality of the gluten; flour for macaroni is chiefly valued for the ductility of the gluten, and the aleurometer is thus chiefly useful in the hands of bakers and dealers in flours designed for domestic consumption. The instrument consists of a brass tube 3 centimeters in diameter, and about 12.7 centimeters (5 inches) long. This is provided with a cap that may be screwed to the bottom and that also serves for a base, and another cap is permanently fixed to the top. Inside the tube is a piston, fitted accurately, and provided with a piston-rod that extends upward through an opening in the top of the tube. The whole length of the tube is divided into fifty divisions, and the piston-rod is graduated from twenty-five to fifty of the same division. In use, 30 grammes (about 1 oz.) of flour is selected and made into a paste, with 15 grammes of water. After kneading, this is washed in a stream of water to remove the starch, and is then compressed to drive out the surplus water. A sample of this crude gluten is then weighed, and 7 grammes are taken out and rolled in starch to make a roll that will fit the aleurometer. The cap is removed from the base of the tube, and the inside of the tube is smeared with butter, and the roll of gluten is then inserted so as to fill just half the length of the tube or the space below the piston when it is at rest and leaving the piston pressing on the roll of gluten. The instrument is then placed in an oven, kept at the usual baking temperature. Under the heat, the gluten will expand and raise the piston, thus showing its degree of elastic expansion by the marks on the piston-rod that projects above the instrument. Good flour is said to give gluten that expands fifty per cent. beyond its original bulk. Bad gluten does not swell at all, and remains viscid and sticks to the tube, besides giving out a disagreeable odor. Good flour in this instrument gives the sweet smell of hot bread. For dealers who have no facilities for baking, the aleurometer is arranged with an oil-bath heated by a lamp or gas jet, and in this bath the gluten may be raised to any desired temperature, and to regulate this, a thermometer is attached to the apparatus.

Carrier-Pigeons in Fishing.

THE herring-fishing carried on in boats at night involves a certain amount of lost labor from the fact that the fish must be cured immediately on the arrival of the boats with the catch in the morning. No estimate can be made of the amount of catch to be brought in, and a large force must be maintained on shore to prepare for any extra supply that may arrive in, and in case of light fares, much of this labor is wasted. To obviate this uncertainty and to give prompt information on shore of the probable return of the boats and the amount of their load, carrier-pigeons are now employed. A bird is taken out in each boat, and when the nets have been hauled in and the amount of the catch is ascertained, the bird is let loose with the information on a slip of parch-

ment tied round its neck. The bird at once "homes" and quickly delivers its burden at its owner's residence. The direction of the wind, the position of the boat and its prospects for the return voyage and other useful information may thus be sent ashore, and in case of unfavorable weather, directions may be sent to guide the tug-boats that go out to bring in the fleet. In our cod-fishing on the Banks, "homing pigeons" might often prove of the utmost value, both in stating the position of the fleet, and in preventing loss in case of disaster, and in guiding steamers to the rescue of disabled boats. The use of parchment on the neck of the bird has several objections, and fine, light, oiled paper, carefully bound round one of the tail-feathers is thought to be a much safer way of sending dispatches by pigeon express.

BRIC-À-BRAC.

Some New Models for Letter-writers.

IN the series of models for letters published in this department for November, there were some circumstances and contingencies likely to arise in ordinary American life, which were left unprovided for; and, therefore, at the request of many readers who feel the need of models to suit certain particular cases, the following additional forms have been prepared. It is hoped that they will prove to be adapted to the cases for which they are intended, and that the language of the epistles will not be found at variance with that of the ordinary "Complete Letter-writer."

No. 1.

From the author of a treatise on molecular subdivision, who has been rejected by the daughter of a cascarilla-bark-refiner, whose uncle has recently been paid sixty-three dollars for repairing a culvert in Indianapolis, to the tailor of a converted Jew on the eastern shore of Maryland, who has requested the loan of a hypodermic syringe.

WEST ORANGE, Jan. 2, 1877.

DEAR SIR: Were it not for unexpected obstacles, which have most unfortunately arisen, to a connection which I hoped, at an early date, to announce, but which, now, may be considered, by the most sanguine observer, as highly improbable, I might have been able to obtain a pecuniary loan from a connection of the parties with whom I had hoped to be connected, which would have enabled me to redeem, from the hands of an hypothecator the instrument you desire, but which now is as unattainable to you as it is to

YOURS MOST TRULY,
THOMAS FINLEY.

No. 2.

From an ambassador to Tunis, who has become deaf in his left ear, to the widow of a manufacturer of perforated under-clothing, whose second son has never been vaccinated.

TUNIS, Africa, Aug. 3, '77.

MOST HONORED MADAM: Permit me, I most earnestly implore of you, from the burning sands of this only too far distant foreign clime to call to the notice of your reflective and judicial faculties the fact that there are actions which may be deferred until too recent a period.

With the earnest assurance of my most distinguished regard, I am, most honored and exemplary madam, your obedient servant to command,

L. GRANVILLE TIBBS.

No. 3.

From a hog-and-cattle reporter on a morning paper, who has just had his hair cut by a barber whose father fell off a wire-bridge in the early part of 1867, to a gardener, who has written to him that a tortoise-shell cat, belonging to the widow of a stage-manager, has dug up a bed of calcocolarias, the seed of which had been sent him by the cashier of a monkey-wrench factory, which had been set on fire by a one-armed tramp, whose mother had been a sempstress in the family of a Hicksite Quaker.

NEW YORK, Jan. 2, '77.

DEAR SIR: In an immense metropolis like this, where scenes of woe and sorrow meet my pitying eye at every glance, and where the living centuries, the observation and consideration of which give me the means of maintenance, are always, if deemed in a proper physical condition, destined to an early grave, I can only afford a few minutes to condole with you on the loss you so feelingly announce. These minutes I now have given.

Very truly yours,

HENRY DAWSON.

No. 4.

From the wife of a farmer, who, having sewed rags enough to make a carpet, is in doubt whether to sell the rags, and with the money buy a mince-meat chopper and two cochon-china hens of an old lady, who, having been afflicted with varicose veins, has determined to send her nephew, who has been working for a pump-maker in the neighboring village, but who comes home at night to sleep, to a school kept by a divinity student whose father has been educated by the clergyman who had married her father and mother, and to give up her little farm and go to East Durham, New York, to live with a cousin of her mother, named Amor Murdock, or to have the carpet made up by a weaver who had bought oats from her husband, for a horse which had been lent to him for his keep—being a little tender in his fore feet—by a city doctor, but who would still owe two or three



"There she goes a sleigh-ridin' with Billy Wilkins, and only Chewsdy night she asked me for my fortograf!"

dollars after the carpet was woven, and keep it until her daughter, who was married to a dealer in second-hand blowing-engines for agitating oil, should come to make her a visit, and then put it down in her second-story front chamber, with a small piece of another rag-carpet, which had been under a bed, and was not worn at all, in a recess which it would be a pity to cut a new carpet to fit, to an unmarried sister who keeps house for an importer of Limoges faience.

GREENVILLE, July 20, '77.

DEAR MARIA: Now that my winter labors, so unavoidably continued through the vernal season until now, are happily concluded, I cannot determine, by any mental process with which I am familiar, what final disposition of the proceeds of my toil would be most conducive to my general well-being. If, therefore, you will bend the energies of your intellect upon the solution of this problem, you will confer a most highly appreciated favor upon

Your perplexed sister,
AMANDA DANIELS.

Alnaschar: New York. 1877.

WHERE was I last week? At the Skinners';
It's really a nice place to dine.
The old man gives capital dinners,
And is rather a good judge of wine.
The daughters are stylish and pretty—
Nice girls, eh? Don't know them, you say?
Indeed? That is really a pity;
I'll take you there with me some day.

You'll be pleased with the eldest—Miss Carrie;
But Maude's rather more in my style.
By George! If a fellow could marry,
There's a girl who would make it worth while!
But it costs such a lot when you're doubled;
You must live in some style, there's the rub.
Now a single man isn't so troubled,
It's always good form at the club.

As to Maude, she'd say yes in a minute,
If I asked for her hand, I dare say;

Soft, white hand,—if a fortune were in it,
I'd ask her to have me to-day.
Father rich? Well, you know there's no knowing
How a man will cut up till he's dead.
Have I looked at his tax-list? I'm going
To do it, old boy, that's well said!

But even rich fathers aren't willing
Always to come down with the pelf;
They'll say they began with a shilling,
And think you can do it yourself.
What's that paper, just there? The "Home
Journal?"

What's the news in society, eh?
ENGAGED! Now, by all the infernal—
It can't be, pass it over this way.

Hm! "Reception"—"Club breakfast"—"Grand
dinner."

"We learn that the charming Miss Maude,
Youngest daughter of Thomas O. Skinner,
Is engaged to George Jones"—He's a fraud!—
"Of the firm of Jones, Skinner & Baker.

The marriage will take place in May."
Hang the girl for a flirt—the deuce take her!
Well, what are you laughing at, eh?

MRS. M. P. HANDY.

The Dead Bee.

WHERE honeysuckles scent the way,
I heard thee humming yesterday;
Thy little life was not in vain,
It gattered sweets for other's gain,
And somewhere in a dainty cell
Is stored delicious hydromel.

O poet! in thy calm retreat,
From joy and grief extracting sweet,
Some day thy fancy's wings must fold
And thou lie motionless and cold.
Perhaps thy garnered honey then
May be the food of living men.

FLETCHER BATES.